

Pertanika Journal of  
**SOCIAL SCIENCES  
& HUMANITIES**

JSSH

**VOL. 26 (4) DEC. 2018**



PERTANIKA  
JOURNALS

A scientific journal published by Universiti Putra Malaysia Press

## *Journal of Social Sciences & Humanities*

### About the Journal

#### Overview

Pertanika Journal of Social Sciences & Humanities (JSSH) is the official journal of Universiti Putra Malaysia published by UPM Press. It is an open-access online scientific journal which is free of charge. It publishes the scientific outputs. It neither accepts nor commissions third party content.

Recognized internationally as the leading peer-reviewed interdisciplinary journal devoted to the publication of original papers, it serves as a forum for practical approaches to improving quality in issues pertaining to social and behavioural sciences as well as the humanities.

JSSH is a **quarterly** (*March, June, September and December*) periodical that considers for publication original articles as per its scope. The journal publishes in **English** and it is open to authors around the world regardless of the nationality.

The Journal is available world-wide.

#### Aims and scope

Pertanika Journal of Social Sciences & Humanities aims to develop as a pioneer journal for the social sciences with a focus on emerging issues pertaining to the social and behavioural sciences as well as the humanities.

Areas relevant to the scope of the journal include Social Sciences—Accounting, anthropology, Archaeology and history, Architecture and habitat, Consumer and family economics, Economics, Education, Finance, Geography, Law, Management studies, Media and communication studies, Political sciences and public policy, Population studies, Psychology, Sociology, Technology management, Tourism; Humanities—Arts and culture, Dance, Historical and civilisation studies, Language and Linguistics, Literature, Music, Philosophy, Religious studies, Sports.

#### History

Pertanika was founded in 1978. A decision was made in 1992 to streamline Pertanika into three journals as Journal of Tropical Agricultural Science, Journal of Science & Technology, and **Journal of Social Sciences & Humanities** to meet the need for specialised journals in areas of study aligned with the interdisciplinary strengths of the university.

After almost 25 years, as an interdisciplinary Journal of Social Sciences & Humanities, the revamped journal focuses on research in social and behavioural sciences as well as the humanities, particularly in the Asia Pacific region.

#### Goal of *Pertanika*

Our goal is to bring the highest quality research to the widest possible audience.

#### Quality

We aim for excellence, sustained by a responsible and professional approach to journal publishing. Submissions are guaranteed to receive a decision within 14 weeks. The elapsed time from submission to publication for the articles averages 5-6 months.

#### Abstracting and indexing of *Pertanika*

Pertanika is almost **40 years old**; this accumulated knowledge has resulted in Pertanika JSSH being abstracted and indexed in **SCOPUS** (Elsevier), Thomson (ISI) **Web of Science™ Core Collection** Emerging Sources Citation Index (ESCI). Web of Knowledge [BIOSIS & CAB Abstracts], **EBSCO** and EBSCOhost, **DOAJ**, **Google Scholar**, **TIB**, **MyCite**, **ISC**, **Cabell's Directories** & Journal Guide.

### Future vision

We are continuously improving access to our journal archives, content, and research services. We have the drive to realise exciting new horizons that will benefit not only the academic community, but society itself.

### Citing journal articles

The abbreviation for *Pertanika Journal of Social Sciences & Humanities* is *Pertanika J. Soc. Sci. Hum.*

### Publication policy

Pertanika policy prohibits an author from submitting the same manuscript for concurrent consideration by two or more publications. It prohibits as well publication of any manuscript that has already been published either in whole or substantial part elsewhere. It also does not permit publication of manuscript that has been published in full in Proceedings.

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The Pertanika Journals and Universiti Putra Malaysia takes seriously the responsibility of all of its journal publications to reflect the highest in publication ethics. Thus all journals and journal editors are expected to abide by the Journal's codes of ethics. Refer to Pertanika's **Code of Ethics** for full details, or visit the Journal's web link at [http://www.pertanika.upm.edu.my/code\\_of\\_ethics.php](http://www.pertanika.upm.edu.my/code_of_ethics.php)

### International Standard Serial Number (ISSN)

An ISSN is an 8-digit code used to identify periodicals such as journals of all kinds and on all media—print and electronic. All Pertanika journals have ISSN as well as an e-ISSN.

Journal of Social Sciences & Humanities: ISSN 0128-7702 (*Print*); ISSN 2231-8534 (*Online*).

### Lag time

A decision on acceptance or rejection of a manuscript is reached in 3 to 4 months (average 14 weeks). The elapsed time from submission to publication for the articles averages 5-6 months.

### Authorship

Authors are not permitted to add or remove any names from the authorship provided at the time of initial submission without the consent of the Journal's Chief Executive Editor.

### Manuscript preparation

Refer to Pertanika's **INSTRUCTIONS TO AUTHORS** at the back of this journal.

Most scientific papers are prepared according to a format called IMRAD. The term represents the first letters of the words **I**ntroduction, **M**aterials and **M**ethods, **R**esults, **A**nd, **D**iscussion. IMRAD is simply a more 'defined' version of the "IBC" [Introduction, Body, Conclusion] format used for all academic writing. IMRAD indicates a pattern or format rather than a complete list of headings or components of research papers; the missing parts of a paper are: *Title, Authors, Keywords, Abstract, Conclusions, and References*. Additionally, some papers include Acknowledgments and Appendices.

The *Introduction* explains the scope and objective of the study in the light of current knowledge on the subject; the *Materials and Methods* describes how the study was conducted; the *Results* section reports what was found in the study; and the *Discussion* section explains meaning and significance of the results and provides suggestions for future directions of research. The manuscript must be prepared according to the Journal's **INSTRUCTIONS TO AUTHORS**.

### Editorial process

Authors are notified with an acknowledgement containing a *Manuscript ID* on receipt of a manuscript, and upon the editorial decision regarding publication.

Pertanika follows a **double-blind peer-review** process. Manuscripts deemed suitable for publication are usually sent to reviewers. Authors are encouraged to suggest names of at least three potential reviewers at the time of submission of their manuscript to Pertanika, but the editors will make the final choice. The editors are not, however, bound by these suggestions.

Notification of the editorial decision is usually provided within ten to fourteen weeks from the receipt of manuscript. Publication of solicited manuscripts is not guaranteed. In most cases, manuscripts are accepted conditionally, pending an author's revision of the material.

As articles are double-blind reviewed, material that might identify authorship of the paper should be placed only on page 2 as described in the first-4 page format in Pertanika's **INSTRUCTIONS TO AUTHORS** given at the back of this journal.

### The Journal's peer-review

In the peer-review process, three referees independently evaluate the scientific quality of the submitted manuscripts.

Peer reviewers are experts chosen by journal editors to provide written assessment of the **strengths** and **weaknesses** of written research, with the aim of improving the reporting of research and identifying the most appropriate and highest quality material for the journal.

### Operating and review process

What happens to a manuscript once it is submitted to *Pertanika*? Typically, there are seven steps to the editorial review process:

1. The Journal's chief executive editor and the editorial board examine the paper to determine whether it is appropriate for the journal and should be reviewed. If not appropriate, the manuscript is rejected outright and the author is informed.
2. The chief executive editor sends the article-identifying information having been removed, to three reviewers. Typically, one of these is from the Journal's editorial board. Others are specialists in the subject matter represented by the article. The chief executive editor asks them to complete the review in three weeks.

Comments to authors are about the appropriateness and adequacy of the theoretical or conceptual framework, literature review, method, results and discussion, and conclusions. Reviewers often include suggestions for strengthening of the manuscript. Comments to the editor are in the nature of the significance of the work and its potential contribution to the literature.

3. The chief executive editor, in consultation with the editor-in-chief, examines the reviews and decides whether to reject the manuscript, invite the author(s) to revise and resubmit the manuscript, or seek additional reviews. Final acceptance or rejection rests with the Editor-in-Chief, who reserves the right to refuse any material for publication. In rare instances, the manuscript is accepted with almost no revision. Almost without exception, reviewers' comments (to the author) are forwarded to the author. If a revision is indicated, the editor provides guidelines for attending to the reviewers' suggestions and perhaps additional advice about revising the manuscript.
4. The authors decide whether and how to address the reviewers' comments and criticisms and the editor's concerns. The authors return a revised version of the paper to the chief executive editor along with specific information describing how they have answered the concerns of the reviewers and the editor, usually in a tabular form. The author(s) may also submit a rebuttal if there is a need especially when the author disagrees with certain comments provided by reviewer(s).

5. The chief executive editor sends the revised paper out for re-review. Typically, at least one of the original reviewers will be asked to examine the article.
6. When the reviewers have completed their work, the chief executive editor in consultation with the editorial board and the editor-in-chief examine their comments and decide whether the paper is ready to be published, needs another round of revisions, or should be rejected.
7. If the decision is to accept, an acceptance letter is sent to all the author(s), the paper is sent to the Press. The article should appear in print in approximately three months.

The Publisher ensures that the paper adheres to the correct style (in-text citations, the reference list, and tables are typical areas of concern, clarity, and grammar). The authors are asked to respond to any minor queries by the Publisher. Following these corrections, page proofs are mailed to the corresponding authors for their final approval. At this point, **only essential changes are accepted**. Finally, the article appears in the pages of the Journal and is posted on-line.



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# Foreword

Welcome to the Fourth Issue for 2018 of the Journal of Social Sciences and Humanities (JSSH)!

JSSH is an open-access journal for studies in Social Sciences and Humanities that is published by Universiti Putra Malaysia Press. It is independently owned and managed by the university and run on a non-profit basis for the benefit of the world-wide science community.

This issue contains 46 articles, out of which one is a review articles and 45 are regular articles. The authors of these articles come from different countries, namely, Bangladesh, India, Indonesia, Iran, Iraq, Jordan, Malaysia, Nigeria, Oman, Russia, South Africa, Spain, Syria and Thailand.

Articles submitted in this issue cover wide range of social sciences and humanities scope including accounting, architecture and habitat, consumer and family economics, economics, education, finance, geography, language and linguistics, law, management studies, media and communication studies, philosophy, political sciences and public policy, psychology, religious study, sociology, sports and tourism. The most favoured scope in this issue is education.

Selected from the education scope is an article entitled “Validity and Reliability of the Mathematics Self-Efficacy Questionnaire (MSEQ) on Primary School Students” by *Chan Huan Zhi* and *Melissa Ng Lee Yen Abdullah* from School of Educational Studies, Universiti Sains Malaysia, Malaysia. The study was conducted with the objective of determining the construct validity of MSEQ on primary school students and the internal consistency reliability of MSEQ on primary school students. To achieve the objectives of the study, quantitative data were collected from a sample of 100 primary school students. Findings from the Exploratory Factor Analysis (EFA) suggested that mathematics self-efficacy was a unidimensional construct. It is highly reliable and can be used to gauge primary school students’ mathematics self-efficacy in a Malaysian school setting. The details of this study is available on page 2161.

Selected from tourism scope is an article entitled “Efficiency of Cruise Port Management: A Comparison of Phuket and Singapore” by *Phaiton Monpanthong* from National Institute of Development Administration (NIDA), Thailand. This study investigated and

compared cruise port management systems between Phuket and Singapore by employing quantitative research methods. From the study, the empirical findings showed that the top five biggest gaps regarding two cruise port management were port infrastructure, port facility, political stability, cruise tourism policy and cleanliness in rank. Hence, the results revealed that port management in Singapore was more efficient than in Phuket in most variables. However, tourism attractions, tourism activity, service providers, value for money, climate/sea conditions, and immigration formalities of Phuket were slightly better than that in Singapore. The detail of this study is available on page 2787.

Selected from the scope of language and linguistics is an article entitled “Incorporating Critical Thinking: Teaching Strategies in an English Language Programme” by *Muhammad Harriz Zaini, Norzie Diana Baharum and Ahmad Firdaos Shauqi Ahmad Sidiki*, fellow researchers from Universiti Teknologi MARA, Malaysia. The study focused on application of critical thinking by English lecturers as well as students in the classroom for the English Language programme in the Academy of Language Studies (ALS) UiTM Shah Alam – English for Professional Communication (LG240). The study was carried out by adapting a framework and concluded that both lecturers and students in the ALS shared the same perception of the application of critical thinking in their classroom. Details of the study is available on page 2379.

Selected from the scope of psychology is an article entitled “Psychological Risk Factors for Postnatal Depression: A Prospective Study of Iranian Low Income Primigravidae at Health Care Centres” by *Matinnia, N., Ghaleiha, A., Jahangard, L., Ghaleiha, A. and Farahmand, E.*, fellow researchers from three different countries (Iran, New Zealand and Malaysia). The study aimed to identify the prevalence of postpartum depression and its association with risk factors in low socioeconomic populations. Questionnaires were distributed among 451 low income pregnant women referred to health care centres and they were assessed using Edinburgh Postnatal Depression Scale (EPDS) for depression. The study found out that the prevalence of depression in pregnancy was higher in low socio-economic primigravida from Iran. The details of the study is available on page 2555.

We anticipate that you will find the evidence presented in this issue to be intriguing, thought-provoking and useful in reaching new milestones in your own research. Please recommend the journal to your colleagues and students to make this endeavour meaningful.

All the papers published in this edition underwent Pertanika's stringent peer-review process involving a minimum of two reviewers comprising internal as well as external referees. This was to ensure that the quality of the papers justified the high ranking of the journal, which is renowned as a heavily-cited journal not only by authors and researchers in Malaysia but by those in other countries around the world as well.

In the last 12 months, of all the manuscripts passed editorial review, 53.7% were accepted. This seems to be the trend in Pertanika Journals for JSSH.

We would also like to express our gratitude to all the contributors, namely the authors, reviewers and editors, who have made this issue possible.

JSSH is currently accepting manuscripts for upcoming issues based on original qualitative or quantitative research that opens new areas of inquiry and investigation.

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## **Validity and Reliability of the Mathematics Self-Efficacy Questionnaire (MSEQ) on Primary School Students**

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### **ABSTRACT**

Mathematics self-efficacy is an important personal attribute and self-belief that can influence students' learning and performance in the subject, as supported by the Social Cognitive Theory. Literature review has shown that due to the scarcity of research on primary school students' mathematics self-efficacy, there is a lack of validated instrument to measure this psychological construct in the local school context. This study sets out to fill the literature gap by examining the validity and reliability of the Mathematics Self-Efficacy Questionnaire (MSEQ) (14 items). The contents of the instrument were validated before the instrument was administered to 100 primary students. The sample size was recommended based on a 1:5 subject-item ratio. Findings from the Exploratory Factor Analysis (EFA) suggested that mathematics self-efficacy is a unidimensional construct. It is highly reliable and can be used to gauge primary school students' mathematics self-efficacy in a Malaysian school setting. The educational implications of this study are discussed in this paper.

*Keywords:* Mathematics self-efficacy, primary school, reliability, self-efficacy, validity

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### **INTRODUCTION**

It is important to equip students with mathematical skills so that they can thrive in school and beyond. According to the Malaysia Education Blueprint (2013-2025) (Ministry of Education Malaysia, 2013), Malaysian students are underperforming in international assessments such as TIMSS (Trends in International Mathematics and Science Study) and PISA (Programme for International Student Assessment). Studies

have shown that students face difficulties in mastering mathematics due to their lack of confidence in the subject, especially when it is being infused with higher-order thinking skills as a result of the recent curriculum reform (Alhassora, Abu, & Abdullah, 2017). Students' mathematics self-efficacy has been demonstrated as a significant predictor of mathematics performance and mathematics problem solving skills (Callejo & Villa, 2009; Williams & Williams, 2010), which are among the key indicators of education quality (Doménech-Betoret, Abellán-Roselló, & Gómez-Artiga, 2017). In line with the recent curriculum reform, there is a pressing need to assess Malaysian students' mathematics self-efficacy from as early as primary school level so that timely interventional steps can be taken to help students gain confidence in the subject. To do so, a valid instrument is needed to help practitioners and researchers gauge local primary school students' mathematics self-efficacy so that their judgments of capabilities in mathematics can be assessed accurately.

Students' self-belief and perception about their own abilities affect the type of choices that they make in a very significant way (Artino Jr., 2012; Bandura, 1977). Self-efficacy increases when students have the perception that they are becoming more skillful learners or they are performing well in the learning processes. Students who are confident in executing learning tasks or activities judge themselves as capable learners. Students with high self-efficacy often set high goals and maintain endurance

in learning despite the challenges that they face. For instance, if they face low progression or failure, the students will persist because they believe that they can perform better by expending more effort (Locke & Latham, 2006; Schunk, 1995). These students also attribute failure to a lack of knowledge or skills, rather than to their personal capabilities (Bassi, Steca, & Fave, 2011; Bandura, 1997).

On the other hand, students with low self-efficacy always suffer from self-doubt and they also lack personal skills. These students would be likely to avoid learning tasks if they believe that such tasks are beyond their competencies (Bandura, 1977; Schunk & Pajares, 2009). They often exhibit minimum effort, set low academic goals, and are less likely to experience success. As a result, they often face obstacles and experience higher rates of failure, stress, and depression (Bandura, 1982; Redmond, 2010).

As academic self-efficacy is a multidimensional construct, students may have different levels of self-efficacy in different subject domains. They may feel efficacious in one subject (e.g., English) but have low self-efficacy in another (e.g., mathematics). Those who perform well in mathematics will also have high self-efficacy in the subject when dealing with new mathematical contents (Schunk & Pajares, 2002). For instance, students with high self-efficacy in mathematics are more likely to transfer their mastery of 'addition' onto 'multiplication', which makes it easier and faster for them to

learn new mathematical concepts. Self-efficacy has received increasing attention in educational research as it correlates with higher achievement outcomes (Pajares, 1996; Valiente, Swanson, & Eisenberg, 2012). In fact, self-efficacy has been found to be the strongest predictor of academic achievement (Komarraju & Nadler, 2013; Richardson, Abraham, & Bond, 2012; Van Herpen, Meeuwisse, Hofman, Severiens, & Arends, 2017).

### **Underlying Theory of Self-Efficacy**

Self-efficacy is a psychological construct which was first coined by Albert Bandura in 1969. Based on findings from empirical research, Bandura discovered that self-efficacy contributes to behavioural change, which is supported by Social Cognitive Theory (Bandura, 1977). According to Social Cognitive Theory, learning is influenced by a reciprocal causation cycle between behaviour, personal factors, and environmental influences (Bandura, 1986). The behavioural component of learning consists of responses that students make in the learning environment, which often translates into academic outcomes and performance (e.g., mathematics performance). The personal factors, on the other hand, encompass students' beliefs and attitudes, particularly their self-efficacy beliefs. Finally, the environmental factors include feedback given by significant others, such as the teachers, which can have a long-lasting effect on students' learning and self-belief. Founded on the importance and relevance of Social Cognitive Theory

in the field of education, self-efficacy is a topic which has been widely adopted and researched. It affects students' thoughts, commitment to their goals, anticipated outcomes from their efforts, resilience to adversity, quality of emotional life, and accomplishments they recognize (Bandura, 2006).

Figure 1 describes the theoretical framework that underpins self-efficacy. It explains the relationships between sources of mathematics self-efficacy, its components and how mathematics self-efficacy affects mathematics performance. Mathematics self-efficacy refers to students' self-appraisal of their own abilities in general mathematics, confidence in learning the subject in future, their capabilities in learning the subject in class and completing mathematics assignments.

According to Social Cognitive Theory, when students access their abilities in a particular subject (e.g., mathematics) they will reflect on their past performance or accomplishment (Arslan, 2013; Bandura, 1997). Successful performances in the past will contribute towards their beliefs that they can do well in the subject. In addition, according to Social Cognitive Theory, by observing peers' successes in learning the subject, students can also increase their self-efficacy beliefs in mathematics. This is because they are confident in achieving similar performance as their peers did, which is known as vicarious experience. Apart from peers, positive comments from significant others, such as teachers and family members also serve as sources of

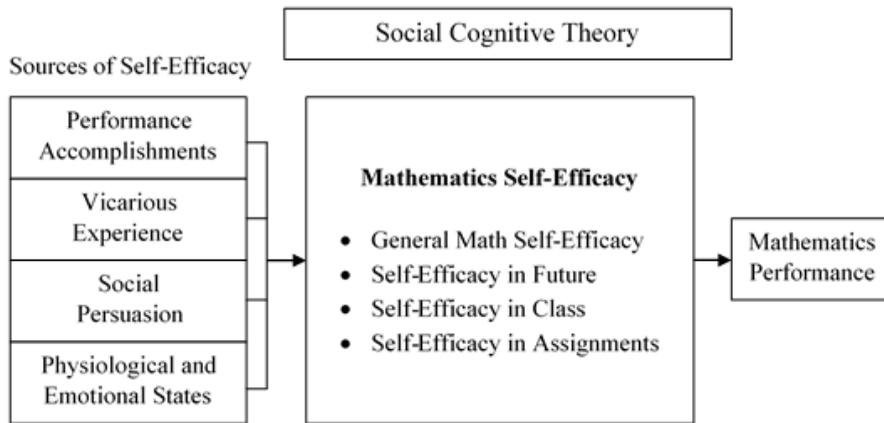


Figure 1. Theoretical framework in mathematics self-efficacy (adapted from Bandura, 1977; May, 2009; Stevens, Olivárez, & Hamman, 2006)

students' mathematics self-efficacy. These social persuasions reinforce their self-beliefs that they can learn and do well in mathematics. Lastly, students' positive psychological and emotional states during learning increase their mathematics self-efficacy further. The different sources of self-efficacy contribute towards students' efficacious beliefs in general mathematics, capabilities in mastering the subject in class, completing its assignments and learning mathematics in future. Students' mathematics self-efficacy will influence their mathematics performance positively.

### Mathematics Self-Efficacy and Its Measurement

Mathematics self-efficacy is defined as “a situational or problem-specific assessment of an individual’s confidence in her or his ability to successfully perform or accomplish a particular mathematics task

or problem” (Hackett & Betz, 1989). Students who perform well in mathematics are likely to have higher self-efficacy when learning new contents, compared to those who perform poorly in mathematics and those with learning difficulties (Schunk & Pajares, 2002). Numerous past studies have shown that students' mathematics self-efficacy is significantly related to their mathematical problem solving skills (Callejo & Vila, 2009; Kamalimoghaddam, Tarmizi, Ayub, & Wan Jaafar, 2016; Williams & Williams, 2010). The way students view themselves will influence their approach in mathematics. Students with high self-efficacy tend to be more interested in learning mathematics, whereas those with low self-efficacy have less interest and understanding of mathematics (Abedalaziz & Akmar, 2012). Students may perform poorly in mathematical problem solving because of their misperceptions about

themselves. They may be less likely to take risks, explore new ideas, or solve new problems, even though they may in fact have strong mathematical problem solving abilities. Past studies have found that mathematics self-efficacy had been used to evaluate a variety of academic performances, but a major focus was its relationship with mathematical skills (Mohd, Mahmood, & Ismail, 2011; Kranzler & Pajares 1997). Even though there are studies that examine the association between mathematics self-efficacy and performance, empirical studies that examine the psychometric properties of the measurement instruments are scarce, for instance the measurement of mathematics self-efficacy among primary school students, particularly in the Malaysian context (Karbasi & Samani, 2016; Pampaka, Kleanthous, Hutcheson, & Wake, 2011; Zimmermann, Bescherer, & Spannagel, 2011).

As emphasized by Bandura (1986), judgments of self-efficacy are task-specific. Therefore, it is important that assessment of mathematics self-efficacy is carried out using a validated instrument. Construct validity has been the focus in theoretical and empirical studies for over half a century, because it is important to measure an index of a variable that is not directly observable (e.g., intelligence), in order to ease the process of interpretation (Westen & Rosenthal, 2003). Hence, the construct validity of mathematics self-efficacy scale must be tested and established. Several scales and instruments have been developed to measure mathematics self-efficacy. The

earliest mathematics self-efficacy scale was the Mathematics Confidence Scale (MCS) developed by Dowling (1978). The Mathematics Self-Efficacy Scales (MSES), on the other hand, was developed by Betz and Hackett in 1982. It has three subscales: (1) mathematics problems self-efficacy; (2) mathematics tasks self-efficacy; and (3) college courses self-efficacy (Langenfeld & Pajares, 1993). Since then, the MSES have been used in a number of studies in mathematics (Hackett & Betz, 1989; Liu & Koirala, 2009; Nielson & Moore, 2003; Pajares & Miller, 1994). The MSES is a multidimensional measure of mathematics self-efficacy, which has been found to be a reliable and valid scale, allowing findings from these studies to offer valuable insights to strengthen Bandura's arguments on the role of self-efficacy (Langenfeld & Pajares, 1993). In 1993, Langenfeld and Pajares modified the Mathematics Self-Efficacy Scales (MSES). The Mathematics Self-Efficacy Scales-Revised (MSES-R) contains three subscales: (1) solution of mathematics problems; (2) completion of mathematics tasks used in everyday life; and (3) performance in college courses requiring knowledge and mastery of mathematics. The items on the MSES-R were taken from the original MSES, but mathematical problems scales were replaced by problems from MCS, which included arithmetic, algebra, and geometry (Dowling, 1978).

May and Glynn (2008) developed the Mathematics Self-Efficacy Questionnaire (MSEQ). It serves as a valid and reliable instrument to gauge college students'

mathematics self-efficacy. Research findings suggest that MSEQ is reliable, internally consistent, valid, and convenient to administer. MSEQ later underwent further improvements to capture students' anxiety in the subject of mathematics (May, 2009). It has been renamed as Mathematics Self-Efficacy and Anxiety Questionnaire (MSEAQ). Even though this instrument has been widely used to measure students' mathematics self-efficacy, such as in higher secondary schools and among university students, it is yet to be tested on Malaysian samples, particularly at the primary school level (Kundu & Ghose, 2016; Rosly, Samsudin, Japeri, Rahman, & Abdullah, 2017). Due to a lack of empirical studies to examine its validity and reliability, it is unclear to what extent MSEQ can be applied in the local context. In summary, most studies have validated the instrument on older student populations such as college and secondary school students, as well as teachers (Karbasi & Samani, 2016; Kundu & Ghose, 2016; May, 2009). Even though several studies have focused on primary school students' self-efficacy, these studies did not specifically focus on the measurement of mathematics self-efficacy (Joët & Usher, 2011; Pajares, Johnson, & Usher, 2007). Pajares, Johnson and Usher (2007) examined the sources of self-efficacy among elementary, middle, and high school students. Similarly, Joët and Usher (2011) had focused on elementary students' sources of self-efficacy in academic context. These studies did not measure mathematics self-efficacy among primary school students and

the validity of its measurement was not the focus of these previous studies. Hence, to fill the existing literature gap, researches ought to be conducted to establish the validity and reliability of mathematics self-efficacy questionnaire on primary school students in the local context.

### Objectives

The objectives of the study were as follows:

1. To determine the construct validity of MSEQ on Primary School Students.
2. To determine the internal consistency reliability of MSEQ on Primary School Students.

## MATERIALS AND METHODS

### Samples

To achieve the objectives of the study, quantitative data were collected from a sample of 100 primary school students. Based on Gorsuch's (1983) and Hatcher's (1994) recommendations, a minimum sample size of 100 students was required to run Exploratory Factor Analysis (EFA) on the 14-item MSEQ. This guideline was based on the subject-item ratio of 5:1. This implied that the sample size of the study ( $n=100$ ) was adequate to carry out EFA. The Year 5 students were sampled from a National Type Primary School located in the northern area of Penang Island. The samples were selected using cluster random sampling method. To gain expedient data, samples were randomly selected using groups that have shared similar traits or characteristics. In this study, all samples

were chosen from the same school (Gay, Mills, & Airasian, 2011).

### **Mathematics Self-Efficacy Questionnaire (MSEQ)**

The Mathematics Self-Efficacy Questionnaire (MSEQ), adapted from the MSEAQ (May 2009), was used to measure primary school students' mathematics self-efficacy. Permission to use this instrument has been granted by the original developer. It is a five-point Likert scale with responses ranging from (1) *Never* to (5) *Usually*. Past research (Cowan, 2010) showed that primary school students were able to respond to five units of information at one time. Offering more response options would induce unnecessary cognitive burden on them (Cowan, 2010) while increase in response scale might lead to less information or unsystematic measurement error.

MSEAQ is a highly reliable instrument with a Cronbach's alpha value of .96 (May, 2009). Even though MSEAQ is a reliable instrument, it was not originally designed for primary school students. Hence, for the purposes of this study, revisions were made to adapt the items for usage on primary school students in Malaysia. Changes were made to simplify the statements of each item and to orient its focus to mathematical learning at the primary school level.

The final version of the questionnaire was verified by a panel of experts in the field of Educational Psychology from a public university and later translated into Malay language using back translation method. Translating the questionnaire from the

source language (English Language) into the target language (Malay Language) is a complex process and requires tremendous care to ensure that the final version is not only suitable for the new context, but also consistent with the original version. The back translation method was conducted by first translating the questionnaire into the Malay language and then, translating it back into English. Both English versions were then compared to ensure accuracy (Sowtali, Yusoff, Harith, & Mohamed, 2016). The back translations were done by two bilingual experts, who are experienced language panelists from the local primary schools. These experts are competent in both English and Malay languages and are familiar with the language competency and learning context of primary school students. In addition, clear explanations were provided by researchers during data collection to ensure that the instructions and items in the questionnaire were comprehensible to all students, so that they would have no difficulties in responding to the Likert scale.

MSEQ is made up of four subscales (Table 1), which measure the four domains of mathematics self-efficacy: (1) General Math Self-Efficacy, (2) Self-Efficacy in Future, (3) Self-Efficacy in Class, and (4) Self-Efficacy in Assignments.

When responding to the items in General Math Self-Efficacy domain, students typically reflect on their personal characteristics and self-belief which include how these characteristics and beliefs affect their self-efficacy in mathematics. Next, within the domain of Self-Efficacy in Future,

students build the connection between learning mathematics and their future. Their views and ideas on how confident they feel about working with mathematics in the future are captured in this subscale. The Self-Efficacy in Class, on the other hand, measures students' self-efficacy and their self-belief in relation to questions in class. Lastly, students judge their own self-efficacy in relation to mathematics homework, tests, or assignment completion.

Prior to data collection, approval from the Ministry of Education (MoE) and clearance from both the State Education Department and the school authorities were obtained. Quantitative data were collected using survey questionnaires. Analysis was done using Exploratory Factor Analysis (EFA) to determine the construct validity of the instrument, while Cronbach's Alpha analysis was carried out to measure the internal consistency reliability of the scale.

**RESULTS AND DISCUSSION**

The results and discussions of the study are divided into findings on validity and reliability of MSEQ, in line with the two objectives of the study.

**Validity of MSEQ**

Validity refers to the degree to which an instrument measures what it is intended to measure (Gay & Airasian, 2000). It is the most fundamental consideration in developing and evaluating tests, as it determines whether the dimension(s) underlying a variable are actually being measured (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 1999). Validity is specific to the interpretation being made by the researchers and to the group being tested in the population (Gay, Mills, & Airasian, 2011). Hence, validity of MSEQ in this study would indicate to which extent this instrument measures mathematics self-efficacy of primary school students in the Malaysian context.

In this study, a statistical method known as the Exploratory Factor Analysis (EFA) was used to determine the underlying structure of mathematics self-efficacy. EFA is currently the method of choice for examining construct validity, as evidenced by previous studies in the area of psychology and education (Laher, 2010). Before running

Table 1  
*Item-specification of Mathematics Self-Efficacy Questionnaire (MSEQ)*

No.	Dimension	Item No.	No. of Items
1	General Math Self-Efficacy	4, 10, 13	3
2	Self-Efficacy in Future	5, 11, 14	3
3	Self-Efficacy in Class	1, 6, 8, 12	4
4	Self-Efficacy in Assignments	2, 3, 7, 9	4
Total			14

EFA, the content validity of MSEQ was verified by a panel of experts in the field of Educational Psychology from one public university. In addition, the assumptions and practical considerations underlying EFA were assessed before the analysis was run. Procedures to test normality were carried out. The visual displays suggested that the data formed a normal distribution. The suitability of the data for factor analysis was also tested. The correlation matrix indicated that a number of correlations exceeded .30, thus it was suitable for factoring. The Bartlett's Test of Sphericity was significant at .01, which indicated that there were no zero correlations. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (.915) was greater than the minimum value required (.60) to run a factor analysis (Coakes & Steed, 2007). Furthermore, the anti-image matrices showed that all the values were above the acceptable level of .50 (Coakes & Steed, 2007). It was, thus, concluded that items in MSEQ were factorable.

Examination of the initial statistics revealed that two factors were extracted as shown in Table 2. This implied that primary school students' mathematics self-efficacy, as measured by MSEQ, was not a four-dimensions construct. It is made up of two-dimensions of factors, which accounted for 62.72% of the variance. Factor I was predominant, it explained 55.17% of the variance and had an eigenvalue of 7.72, whereas Factor II accounted for 7.543% of the variance and had an eigenvalue of 1.05. Eigenvalues greater than one were accepted for the latent root criterion, as

recommended by Hair, Anderson, Tatham and Black (1998).

Table 2

*Results of extraction of common factors in MSEQ*

Factors	Eigenvalues	Percentage of Variance	Cumulative Percentages
I	7.72	55.17	55.17
II	1.05	7.54	62.72

The scree plot (Figure 2) graphically displayed the eigenvalues for each factor. Generally, factors above the inflection point of the slope should be retained. Factor I was above the inflection point of the slope. However, Factor II was eliminated because it fell on the inflection point and only accounted for 7.54% of the variance. Factor II had an eigenvalue greater than 1.0, Varimax rotation method was used to assist with the interpretation of the factors, as it yielded meaningful item groupings.

The analysis results showed that MSEQ is a unidimensional instrument. According to the rule of thumb by Hair et al. (1998), factor loadings of .50, or higher are acceptable. Items 1, 6, and 9 have dual loadings and their values were larger than .50, thus, these items could be loaded in either Factor I or II (Table 3). Data analysis suggested that there were overlapping concepts. Nonetheless, this instrument was designed to measure students' mathematics self-efficacy. Therefore, the extracted factors would be related to each other. Moreover, based

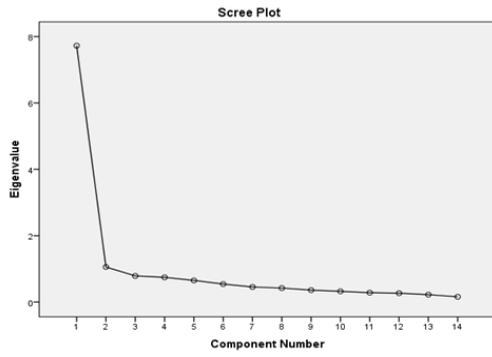


Figure 2. Scree plot of factors in MSEQ

Table 3  
Rotated component matrix of MSEQ

Items	Component	
	1	2
Item 7	0.798	
Item 4	0.783	
Item 11	0.755	
Item 12	0.737	
Item 13	0.730	
Item 2	0.721	
Item 10	0.716	0.412
Item 5	0.684	
Item 8	0.652	
Item 14	0.643	
Item 9	0.571	0.510
Item 1	0.554	0.520
Item 3		0.890
Item 6	0.501	0.659

on the scree plot in Figure 2, Factor II only accounted for 7.5% of variance and fell on the inflection point. Only factors above the inflection point of the slope should be retained. Hence, based on these reasons,

Factor I was retained and the instrument was considered unidimensional.

**Reliability of MSEQ**

Reliability is the degree to which an instrument consistently measures whatever it is measuring (Gay & Airasian, 2011). An instrument or a scale is considered to have high reliability when the scale was re-administered to the same samples and the scores obtained are essentially the same. There are a numbers of different reliability coefficients. One of the most commonly used is Cronbach’s Alpha, which is based on the average correlation of items within a test. This analysis determines how all items within the instrument measure the same construct (Sweet & Grace-Martin, 2003). Reliability is expressed numerically; the values of internal consistency are rated in between 0 to 1. The closer the alpha is to 1.00, the greater the internal consistency of items in the instrument being assessed. As a whole, the 14-item MSEQ has yielded a Cronbach’s Alpha value of .936, which suggested that the instrument was highly reliable (George & Mallery, 2003).

The EFA analysis and reliability test showed that MSEQ was a valid and reliable instrument. Even though the Extraction of Common Factor in MSEQ (Table 2) initially suggested that mathematics self-efficacy was a two-dimensional construct, the results of the analysis showed that the construct was unidimensional. After deletion of items 3 and 6, the unidimensional instrument still recorded a Cronbach’s Alpha value exceeding  $\alpha > 0.90$  (Table 4).

The reliability of the 12-item MSEQ was excellent ( $\alpha = 0.939$ ) based on George and Mallery's (2003) guidelines and all the 12 items solidly measure mathematics self-efficacy as a unidimensional construct.

## CONCLUSION

In conclusion, this study has found that the 12-item Mathematics Self-Efficacy Questionnaire (MSEQ) is a valid and

reliable instrument. Its content validity has been verified by a panel of experts in the field of Educational Psychology while its construct validity has been tested through Exploratory Factor Analysis (EFA). Even though the original instrument has four subscales, the results of EFA show that the construct is unidimensional when tested on a sample of primary school students. An

Table 4  
*Item-Total Statistics of MSEQ*

Items	Scale mean if Item Deleted	Correlated Item-Total Correlation	Cronbach's Alpha if Item Deleted
Item 1	50.32	0.688	0.932
Item 2	49.79	0.693	0.932
Item 3	49.08	0.376	0.939
Item 4	50.23	0.793	0.928
Item 5	49.84	0.592	0.934
Item 6	49.56	0.713	0.931
Item 7	49.69	0.644	0.933
Item 8	49.49	0.709	0.932
Item 9	49.37	0.700	0.932
Item 10	49.93	0.784	0.929
Item 11	49.72	0.741	0.930
Item 12	50.26	0.772	0.929
Item 13	50.59	0.759	0.930
Item 14	49.84	0.694	0.932

instrument is seen as unidimensional if the item variance is controlled and only due to one latent variable (Ziegler & Hagemann, 2015). In this study, the four-dimensional MSEQ, when tested with the local primary school population, was found to be a

single dimension latent variable, which is mathematics self-efficacy.

The original MSEAQ has been widely used to measure students' mathematics self-efficacy in higher secondary schools and higher education (Kundu & Ghose,

2016; Rosly et al., 2017). Its psychometric properties, however, may not be generalizable to primary school context, as elementary students tend to pose lower level of cognitive maturity and have more simplistic self-evaluation mechanism. For instance, a study by Kranzler and Pajares (1997) on 522 undergraduates found that mathematics self-efficacy was a multidimensional construct, which measured students' perceived general and subject-specific capabilities. Another study by Zarch and Kadivar (2006) on 848 middle school students also discovered that mathematics self-efficacy was a multidimensional construct. The current study, however, found that primary school students' mathematics self-efficacy was a unidimensional latent variable, as validated by factor analysis. The strength of MSEQ lies in its simple single-factor construct and high internal consistency.

The uses of MSEQ among primary school students were relatively scarce. The findings of this study filled up the literature gaps by adapting its items and establishing its validity and reliability of using a primary school sample. The MSEQ has high internal consistency ( $\alpha = .939$ ) and can be used to gauge primary school students' mathematical self-efficacy in Malaysian school context. It can gauge mathematics self-efficacy of students aged between 10 to 12 years old (Year 4, 5, and 6) (Kundu & Ghose, 2016; Rosly et al., 2017). The instructions in the questionnaire were comprehensible to primary school students and they were able to respond to a five-point

Likert scale (Smith, Wakely, De Kruif, & Swartz, 2003; Toland & Usher, 2016).

It is recommended that more extensive research be carried out to further assess the usage of MSEQ in other primary schools (e.g., private schools, international schools) and to determine whether differences exist across the different school settings. This is in line with Social Cognitive Theory which postulates that students' self-efficacy is influenced by the students' immediate social learning environment (Dunbar, Dingel, Dame, Winchio, & Petzold, 2016). Future studies can also explore alternative techniques to ascertain the validity and reliability of the instrument, such as using the Structural Equation Modeling (SEM) analysis. SEM offers extensive analysis on the causal relationships between variables as a combination of factor analysis and regression (Hox & Bechger, 2007).

Practitioners and researchers in the field of education could now use the Malay version of the MSEQ to assess students' mathematics self-efficacy at all primary schools nationwide. Translations and further testing, however, are needed if the instrument were to be used in other school settings (e.g., international school). As a whole, the 12-item unidimensional scale was easy to administer and interpret. Assessments can be conducted in a regular classroom and the results can be obtained in a fairly short period of time. The results may help to identify students with low mathematics self-efficacy and timely intervention can be taken to help these students. The validated

instrument can also help researchers to profile primary school students' level of mathematics self-efficacy in a valid and reliable manner. As such, the sources or factors that contribute to their different levels of mathematics self-efficacy can be researched (Joët & Usher, 2011; Pajares, Johnson, & Usher, 2007). In conclusion, this study has contributed to the field of educational psychology and psychometrics by establishing the validity and reliability of MSEQ on primary school students. Having a valid and reliable instrument to measure students' mathematical self-efficacy at an early stage will empirically help teachers to understand students' learning behaviour and come up with more effective early interventions to enhance their self-efficacy in mathematics.

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**APPENDIX**

Supplementary Table 1

*Translated items of MSEQ in Malay language*

Items	
Item 1	Saya berasa cukup yakin untuk menanyakan soalan dalam kelas Matematik.
Item 2	Saya percaya bahawa saya dapat menjawab dengan baik dalam setiap ujian Matematik.
Item 3	Saya percaya bahawa saya seorang yang mahir dalam Matematik.
Item 4	Saya percaya bahawa saya dapat mengaplikasikan Matematik dalam pekerjaan saya pada masa depan.
Item 5	Saya percaya bahawa saya boleh mendapat "A" dalam ujian Matematik.
Item 6	Saya percaya bahawa saya dapat belajar dengan baik dalam kelas Matematik.
Item 7	Saya berasa yakin untuk menyiapkan kertas ujian Matematik dalam masa yang ditetapkan.
Item 8	Saya percaya bahawa saya dapat menyelesaikan masalah matematik.
Item 9	Saya berasa bahawa saya boleh mempelajari subjek Matematik dengan baik pada masa depan.
Item 10	Saya percaya bahawa saya dapat menyelesaikan soalan Matematik jenis kemahiran berfikir aras tinggi.
Item 11	Saya percaya bahawa saya dapat berfikir seperti seorang ahli Matematik.
Item 12	Saya berasa yakin apabila menggunakan Matematik di luar sekolah.



## **Exploring Role Players' Experiences of Learning in Higher Education through a Hybrid Study Approach: A Case Study**

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### **ABSTRACT**

Extending the traditional learning experiences of adult students into new learning experiences can potentially be enriching. This article reports on part of an investigation done for a Master's dissertation (Van Tonder, 2015) and focuses on the experiences of students, tutors, and institutional management when employing a hybrid study approach in adult learning. A qualitative research approach, namely a case study, was used at both a South African and an American higher education institution. The study finds that in the move toward a society where students are interconnected, adult students intentionally search for educational settings that support their way of learning. Moreover, a redress and reform of training and education in South Africa, especially with the integration of technology is needed in order to adapt to a changing global economy.

*Keywords:* Adult learning, blended learning, higher education, online learning, quality learning, technology learning

### **INTRODUCTION**

In a global environment rich in technology, the need to incorporate a cost-effective solution for higher education, while adopting a quality system to meet expectations in education, society and industry, is inevitable (Council on Higher Education, 2006; Kanwar, 2015; Universities South Africa, 2014; U.S. Department of Education, Office of Planning, Evaluation and Policy

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Development, 2010). Despite the global revolution in the use of technology for learning in higher education and the repeated acknowledgment of the use of technology for learning in South African higher education, there has been no directive to lead such a development or its application (Council on Higher Education, 2014). Building additional higher education institutions, better utilisation of existing education facilities, and various other possibilities have been discussed (Department of Higher Education and Training, 2013). In spite of the obvious necessity, very little knowledge and feedback are available on how the quality of learning could be managed by using technology to facilitate the process, due to the lack of a framework and guidelines for the facilitation of the use of technology in South African higher education (Department of Higher Education and Training, 2015).

An awareness of the possible use of innovative and flexible learning methods through technology to enhance the quality of learning is evident from research done at the Cork Institute of Technology in Ireland, Cambridge University in the United Kingdom, Kozminski University in Poland as well as the following institutions in the United States: the University of Indiana, Stanford University, and Clarkson University, each of which fosters a hybrid culture to improve, support, and extend learning and teaching (Johnson et al., 2016). According to Stansbury's report (2011) on the *eSchoolNews* portal entitled "Five things students say they want from education," students want to make decisions

about subjects and subject contents and would also like to have a choice when it comes to the method of delivery. With technology constantly accessible through devices connected to the internet, online education can be delivered wherever and whenever, without a person having to leave the workplace or home and without having to spend time and resources on transport and/or accommodation (Department of Higher Education and Training, 2013; Pappas, 2015; U.S. Department of Education, Office of Planning, Evaluation and Policy Development, 2010).

The integration of technology in education is inevitable. However, investigating the way in which technology should be integrated with and extended to hybrid online education environments requires exploration. Hybrid learning is an educational method by which a web-based platform using a learning management system (LMS) with a curriculum and course materials is blended with the traditional classroom (classroom + online = hybrid). The fact that the integration of technology, with a change in the pedagogical approach in higher education is inevitable, leads us to the main research question of the study: What were the experiences of students, tutors, and the management staff of higher education institutions while using a hybrid study approach in education teaching and learning?

The hybrid study approach is a collaborative and social constructivist learning technique that draws on the theories of Dewey (1938), Vygotsky (1999) and

Piaget (1971) (Jacobs, Vakalisa & Gawe, 2011; Paciotti, 2013; Tapscott & Williams, 2010), emphasising the need for active involvement, reflective thought and the understanding of previous experiences connected to new information. Brown and Adler (as cited in Tapscott & Williams, 2010) reported on the social constructivist learning approach that puts the emphasis on “how” students acquire knowledge and not “what” knowledge students acquire. This viewpoint opposes the Cartesian approach: “I think, therefore I am...” in favor of a social approach to learning: “We participate, therefore we are”. Ashcraft, Treadwell, and Kumar (2008) pointed out that “in social constructivism, knowledge is developed through cognitive activity that occurs during the discussion of experience with other people”. In this theory, the tutor is seen as a facilitator, rather than an instructor, as students develop their own knowledge while the tutor facilitates rather than lead discussions to promote social interaction (Ashcraft et al., 2008).

Although Merriam, Caffarella, and Baumgartner (2007) proclaimed that there was “no single theory of adult learning”, the social constructivist theory is an important step toward understanding adult learning. Drawing on Vygotsky’s view, Merriam et al. (2007) and Scheepers (2015) supported by Kadir, Baboo, Rosni, Rahman, and Bakar (2017) stated that learning was socially constructed through interaction with others, and the constructivism theory of learning was understood as an active activity through “dialogue, collaborative learning,

and cooperative learning” (Merriam et al., 2007). A unique characteristic of adult learning is that it is student-centered. This study draws on the theory of Knowles (1984) in his goal for andragogy, namely to transform the learning/teaching experience from tutor-directed to student-directed learning, moving toward the encouragement of independent and self-directed learning. This implies that different learning styles are applicable to different students (Paimin, Hadgraft, Prpic, & Alias, 2017). Fleming and Mills’s VARK (visual, auditory, read/write and kinesthetic) physiological style inventory is highly accommodated in learning with technology (Fleming & Mills, 1992). Referring to their model, Akin and Neal (2007) stated that students who were orientated more toward visual stimuli preferred graphs, flowcharts, and hierarchy models, whereas students more reliant on auditory perception performed best with lectures, reading, e-mail, and group discussions. However, students for whom the kinesthetic sense was dominant preferred experience and practice that was facilitated by using videos, case studies, and simulations (Madioppe & Govender, 2015). Apart from the focus on adult learning, social, cultural, and technological change calls for “New Learning” (Kalantzis & Cope, 2012). This theory focuses on learning by doing, by thinking, and by being productive in the world and also knowing that world. “New Learning” is about action as well as cognition, it is about collaborative social learning, connected with the ability to act and be adaptable, responsive and

flexible, as opposed to individualized, and cognitive learning (Amory, 2015; Kalantzis & Cope, 2012).

## **MATERIALS AND METHODS**

In the qualitative approach to the case-study design, a “wide- and deep-angle lens” (Johnson & Christensen 2012) was employed to gain an understanding of students’, tutors’ and institutional management’s experiences using a hybrid study approach. The study was based on the interpretative paradigm that claims that individuals develop subjective meanings when they seek to understand the world in which they live and work (Creswell, 2013). The aim was to make sense of participants’ perspectives through direct personal and participatory contact.

### **Sample**

Through purposeful sampling, a group of individuals with experience in studying, tutoring, or managing hybrid study learning, in either Business Management-related or Information Technology-related degree programs, participated in the study. Twenty participants were identified that consisted of 12 senior students, five tutors, and three members from management. Eight students, three tutors, and one management member, from a research site in the Western Cape, South Africa, were involved and four additional students, two tutors and two institutional management members, from a research site in the United States, were engaged to support this study. Participants from the research site in the United States

engaged in this study because the hybrid study model was developed and managed there. Participants from both research sites had access to the same technology platform, content and tutors. Introducing a new unconventional pedagogic approach in learning encouraged participants to explore and investigate a full understanding of different learning perceptions, personal experiences, and possible uncertainties when using a hybrid study approach.

### **Data Collection**

For this study, different sources were accessed and data coordinated by means of entry to students’ and tutors’ online platforms, following peer-group discussion forums as well as asynchronous discussions, reading e-mails, institutional records, journal entries, assignment postings, evaluation records, and getting feedback from students, tutors, and management. The managers of the institutions authorized access to study material that had been issued and assigned to users, as well as the use of internet protocol (IP) addresses according to company policy. Media reports, articles in government journals and newspapers, discussions on forums, including information from audio and visual as well as other related sources were collected and integrated with the data obtained through interviews. On-site individual interviews with participants in the Western Cape, South Africa, and face-to-face individual interviews via Skype with the participants in the United States were conducted focusing on the experiences and expectations of students,

tutors and institutional management when using a hybrid study approach. Field notes were taken during interviews and voice recordings were transcribed.

### Data Analysis

The coding of concepts and the analysis of data started after the first interview when concepts were condensed into themes, categories, and sub-categories to identify related themes that appeared throughout the data (Johnson & Christensen, 2012). Furthermore, *in vivo* coding was used in the formulation of themes to respect the precise words of participants (Creswell, 2013). Member checking was also done to confirm the accuracy of the findings.

### Ethical Measures

Ethical measures included voluntary participation in the study with written permission from all participants at the institutions involved: both the higher education institution in the Western Cape, South Africa and the higher education institution in the United States. Participants gave permission to access their online platforms and discussion forums by signing notes to indicate informed consent.

## RESULTS AND DISCUSSION

Participants from both the South African and the American research sites were either full-time or part-time employees or full-time students. Six students were in Business Management and six students were in Information Technology-related degree

programs. Five students were employed full-time, three part-time, and four were full-time students. Of the tutor participants, three were employed full-time and two were part-time employees. Three tutors taught Business Management and two tutors Information Technology. All three management members were full-time employees. For the purpose of this article, two main themes were identified: (1) 21st century learning experiences and expectations, and (2) creating a platform for learning through the use of technology

### 21st Century Learning Experiences and Expectations

From the data, it was evident that three core factors contributed to 21st century learning are: (1) the integration of technology in everyday life, (2) experiences and expectations, and (3) learning styles and personality types.

**Technology integration in everyday life: “It’s natural - like a signature”.** Students and tutors revealed their use of technology in everyday life, both inside and outside the formal practices of work and study and extending to personal and social networking. A South African student succinctly indicated that “it’s [the integration of technology] natural – like a signature.” Students indicated that they spent 1 to 3 hours per day engaging in some form of non-academic interaction with technology and an average of 4 hours per day on academic activities. The majority of students concluded they spent less time studying when using technology; they could

do research faster, did not have to attend classes on a daily basis and could access their learning anywhere. An American student noted:

*I like the fact that I do not have to be in a classroom for hours at a time. I don't have to fight traffic or worry about parking. The schedule is flexible and I can work at my own pace. If things come up, I am able to rearrange my schedule easier.*

Drawing on the social constructivist orientation of learning in adulthood (Coogan, 2009), it was evident that when students engaged socially in dialogue and events, their learning improved and their current views of knowledge were challenged and transformed through their interaction with others. This is largely supported by Vygotsky's work, (1978) as cited by Amory (2015), who found that meaningful learning in higher education, where learning was seen as an active event, accentuated both an individual's cognitive and socially interactive activity. According to Knowles (1984), adult students' ability to take control of their own learning activities encourages greater autonomy, independence, and responsibility as supported by this study.

**Experiences and expectations:** **“Technology stretches the boundaries of teaching to a lot of lengths”**. The perceptions of students, tutors, and institutional management members had a notable effect on their learning experiences. A South African student stated that his learning experience was different due to technology, “students become more academic because of technology, and they

continuously talk to their peers...about studies, research... So the proliferation of technology gives a proliferation to academic advancement”. Moreover, students' ability to take control of their own learning led to meaningful learning as noted by another South African student: “I read my textbook by myself. That way I can understand ... I am constantly learning new ways of doing things ... and feel more confident”. An American student supported this view by saying that technology had made her “more resourceful and self-sufficient”.

An American tutor noted that the requirements for enhancing technology during learning activities included innovation and “...to bring in outside sources and to try keep up with different technology tools ...”. She explained the importance of paying attention to the “tone” in the technology classroom and that communication with students was “personable” when tutors were not physically present in the classrooms. Regardless the medium, many of the same qualities essential to successful traditional classroom learning also applied to the technology classroom with the tutor as the most significant factor to impact student success. She further explained:

You [still] need to elaborate...break down ideas and concepts that the student can understand even without your presence... If a student posts information I build on that... and I try to be visually there for them [students] like in the classroom....

Tutors mentioned measures such as having a welcome video for students at the beginning of a course, to be available

on specific days for students to meet in person, to have Skype, telephone and e-mail availability with a 24-hour response time during the week and a 48-hour response time over weekends to meet the needs of students.

It was evident from the findings that a different set of skills and management competencies were required for quality learning by using technology. As stated by Kearsley (2013), supported by Roslina, Nur Shaminah, & Sian-Hoon (2013) the effectiveness of teaching with technology was challenging when considering tutor interaction, responsiveness, evaluation, and tutor presence. Tutors had to be good at written communication, had to be organized in order to meet deadlines for both themselves and their students, be emotionally intelligent and be a team player when involved in online teaching (Naroozi & Haghi, 2013). This implies the training of tutors to allow them to share the best practices in accelerating student performance (Naroozi & Haghi, 2013).

**Learning styles and personality types: “In class you will just be quiet... but on technology you can say it”.** Not all students learned the same thing at the same time and in the same way, as explained by a South African student:

If I feel I have energy at 2 a.m., I wake up and do my assignment ... No disturbances. I like it more than during the day ... [but] everything must be available for me ... I don't have to waste the day to go to a tutor. I like to read and study by myself.

Students felt more comfortable to express themselves in an online classroom

as they did not experience peer pressure. A South African student said that in class she preferred to be quiet, but with technology she could “say it, as there is [was] no one to criticize or laugh at you [her]”.

This study showed that where adults learnt with the use of technology and active learning strategies were implemented, focusing on self-direction and taking control of their own learning, different learning styles and personality types were acknowledged. The way in which students preferred to receive, process, and retain information was highly dependent on their learning styles and personality types. It was also evident that different learning styles could be accommodated in the online classroom, which were confirmed by the findings of Collins (2011).

### **Creating a Learning Platform by the Use of Technology**

Online learning refers to learning offered on a learning platform via the internet that excludes face-to-face and print-based instruction, versus a learning approach that includes face-to-face and print-based delivery using a hybrid study approach (U.S. Department of Education, 2010). Students indicated that the type of teaching and learning they preferred depended on the content of the program. A South African student said that “with computer programming...I don't think I would need a class... But with the classes where we had to come in...it helped.” An American member of management noted that the combination of “real lifetime interaction

with the flexibility of learning is the best way” and acknowledged that hybrid learning gave them better results and great retention rates.

Many first-time users of the technology learning platform experienced hybrid study learning as challenging yet positive, as one South African student explained:

At first I was not impressed...I thought how I am going to survive? But now, after experiencing it [the platform], it is really nice and convenient... I learn more than I used to... You click on your course and see what you need to do...it is not complicated.

This view was supported by both South African and American tutors in the study who expressed the advantages of the use of technology for learning and teaching.

In line with the findings supported by Van der Merwe et al. (2015), and Madiope and Govender (2015), participants in the study indicated that challenges existed when using technology in learning that required hands-on practical applications of theoretical content. Other difficulties, also in agreement with the findings of the aforementioned authors, included implementing effective netiquette, applying controlled supervised assessments and evaluations, coping with poor and/or unavailable network strengths and other technical difficulties.

The findings reveal three core factors that contribute to the creation of a learning platform by the use of technology: (1) traditional learning versus learning with technology, (2) the promotion of interaction and feedback, and (3) challenges in using technology for learning.

**Traditional learning as opposed to learning with technology: “I don’t have to be in a classroom for hours...My schedule is now very flexible”.** Many students said that they preferred the flexible schedule when using technology as opposed to traditional learning where they had to be in classroom for hours. Reasons included not having to travel to venues of instruction, medical reasons, work and family responsibilities and the flexibility of learning at any time or place. A South African tutor described the convenience of using technology:

Preparation on the traditional side is more than online ... in traditional learning many concepts need explanation from the textbook ... [but] online is easier ... concepts are already well explained in videos and text....

The findings showed that technology placed greater emphasis on adult students who needed to control their own learning environment and implement appropriate learning strategies to enhance their learning (Knowles as cited in Merriam, et al. 2007). A few students indicated that they preferred traditional learning as one South African student said: “It is easier to learn information from attending class than with reading material ... it is easier to remember what is said than to work alone”. Some tutors also mentioned concerns such as lack of physical contact and that opportunities for observing student behavior were lost in the e-classroom.

Although technology has the potential to expand the efficiency of learning and

teaching, many first-time users experienced learning by the use of technology as challenging and not all students found such learning beneficial. The fact that physical contact and possibilities for observing student behavior were lost in the online classroom was a challenge. However, research findings state that students in hybrid learning conditions perform better than students receiving purely online or exclusively face-to-face instruction (Lane, 2016; ICEF, 2015). One has to acknowledge that technology is in service of educational goals and that pedagogy is more important to quality than technology tools (Van der Merwe et al., 2015).

**The promotion of interaction and feedback: “We can post comments, questions, concerns ... to other students and staff members”.** Students’ interaction with online course materials showed that the well-indexed and searchable online textbooks, the availability of visual materials such as video clips and presentations, online quizzes with immediate results and feedback and the availability of an online library benefitted their learning. Moreover, many students experienced online interaction as helpful due to the peer support they experienced. However, not all students fully utilized student-to-student interaction online, while a few did not feel the need to engage socially or even felt inferior in online peer interactions.

All students experienced student–tutor interaction as positive as regards feedback, visibility and student support. Tutors also had access to the students’ online

platform to assess student involvement and competency. A South African tutor succinctly commented:

I can insert comments and give feedback to students immediately... I can track if students are posting to the discussion forums and are commenting on topics. I can go back ... to the history of assignments if I need to evaluate progress.

The tutors indicated that the teaching styles of tutors using technology were different from traditional face-to-face instruction. An American tutor initially believed that online discussions would not be that dynamic and that it would be difficult to build relationships with students. With experience, she saw that there were appropriate ways to effectively communicate with the students and to build relationships with them. Tutors agreed that the benefits of being paperless and the easy administration were particularly favorable as classes, assignments, discussion forums and grade books were available online. Moreover, the availability and provision of visual materials enhanced the learning experience for users and encouraged student–tutor interaction. However, some students indicated that although tutors were helpful they were not always available when needed, or that feedback was sometimes “generic and clinical.” In line with these findings, Kearsley (2013) stated that the effectiveness of teaching with technology was challenging when considering tutor participation, interaction, responsiveness, evaluation, and tutor presence. An American management participant listed instruments

that were used to measure successful tutoring. Tutors met on a monthly basis where they completed in-service training modules, which did not necessarily take much time. If a tutor was not able to meet the needs of students, he or she was considered not “a match” for online teaching.

Managers at both institutions felt that using technology could change the future of adult learning. An American member of management admitted that students who learnt with the use of technology were a “few steps ahead” of traditional students as they acquired documentation skills, report writing skills, and analysis skills through their participation in discussion forums. Moreover, since students had to learn to keep up with demands outside the educational environment, institutional management relied on “employer advisory boards” where representatives and employers from every program regularly gathered to assess curriculums and express workplace requirements for prospective applicants.

In accordance with the findings of the Vygotskian social cognitivist approach (1978), student learning in the study occurred in a social context through social interaction with peers and tutors where learning was collective that furthered students’ understanding (Paciotti, 2013; Scheepers, 2015). Although the findings revealed the benefits of online learning, challenges associated with this type of learning were also identified.

**Challenges using technology for learning: “Sometimes, because technology is not 100% you don’t have**

**access”.** Participants identified a number of challenges in using technology for adult education, which include the following:

- Adjusting to changes in technology: Learning with technology required rapid adjustment of learning material, accessibility, flexibility, and support. Students, tutors, and institutional management expressed the constant change and adjusting when using technology to learn. They expressed technology as forever changing and noted that for institutions to be able to deliver quality learning and to be sensitive to the demands of their learners, change is imperative. Other problems for tutors, students, and management included institutions’ technology system upgrades that interfered with all participants’ abilities to interact and for uploads and downloads of assignments that are subjected to deadlines.
- Practical application of learned theory: In this regard, an American student said that certain sections of her study fields required both online and classroom learning.
- Netiquette: Despite an orientation process and set rules to guide protocol when communicating online, concerns about quality of postings emerged as was expressed by students and tutors.
- Assessment without direct supervision: Although student platforms could be accessed by

institutional management and external assessors to determine the quality of activities, concerns regarding assessments were expressed from tutors and management participants that a controlled and central supervised assessment venue is needed to authenticate learners and eliminate issues of plagiarism.

- Online learning was not suitable for all: It was evident from participants' feedback that learning results proved highly successful where a face-to-face approach was supported by integration with technology. Moreover, not all individuals got the same social satisfaction from online learning and needed a physical environment to engage with others. As one participant admitted, "I need the tutor in front of me." A tutor participant indicated that students who were tutor-dependent and who lacked self-discipline and self-direction, were less suitable for learning by the use of technology.
- Inferior or superior qualification: Some student participants expressed that obtaining a qualification through technology learning was perceived by their friends, family, and colleagues as inferior when compared to a qualification obtained via face-to-face tuition due to the absence of a full-time and direct tutor supervision. For other students in favor of learning by using

technology, this was a mindset that had to change, especially when the same standards, learning materials, and outcomes were assessed.

- Logistical reasons: Participants mentioned that students who resided in remote areas would be unable to connect or upload assignments or get support from tutors. In addition, network strengths that slowed down the downloading of video material and financial constraints when it came to accessing the internet were identified as challenges.

To simplify an understanding of the diverse factors that have an influence on learning when using a hybrid study approach, a diagrammatic representation is presented in Table 1. In the first section of the article, three categories have been identified, namely: (1) the integration of technology into everyday life, which is influenced by the time spent on using technology; (2) the experiences and expectations of those applying technology in learning; concluding with (3) learning styles and personality types. The second section, namely creating a learning platform by using technology, is a discussion of the challenges faced, as illustrated in three different categories: (1) traditional learning as opposed to learning by the use of technology, including the emerging challenges involved; (2) the promotion of interaction and feedback, highlighting student to student interaction and focusing on the challenges students experience when interacting with course material and the

challenges students experience as regards the discussion forum and peer support; and (3) the challenges in using technology for learning with appropriate subcategories such as the adjustments to changes in technology as required, the practical application of

theoretical content of courses, netiquette, assessment without direct supervision, the fact that not everyone finds online learning equally beneficial and that qualifications acquired in this way are sometimes regarded as inferior.

Table 1  
Representation of research results impacting on learning in higher education through a hybrid study approach

21 <sup>st</sup> Century Learning Experiences and Expectations	Impact on Learning in Higher Education Using A Hybrid Study Approach (Research Results)
<p>1. Technology integration in everyday life</p> <p>2. Experiences and expectations</p>	<ul style="list-style-type: none"> <li>▪ <i>Use of time optimized when learning with technology</i></li> <li>▪ <i>Students' experiences and expectations</i> <ul style="list-style-type: none"> <li>- Innovative and flexible learning</li> <li>- Meaningful, social and active participation</li> <li>- Self-directed and resourceful engagement</li> </ul> </li> <li>▪ <i>Tutors' experiences and expectations</i> <ul style="list-style-type: none"> <li>- Innovative tutoring skills and teaching styles</li> <li>- Same qualities essential for traditional learning success to be applied in the technology classroom</li> <li>- Immediate student support and feedback</li> <li>- From tutor-directed to student-centered approach</li> <li>- Easy administration</li> </ul> </li> </ul>
<p>3. Learning styles and personality types</p>	<ul style="list-style-type: none"> <li>▪ <i>Institutional managements' experiences and expectations</i> <ul style="list-style-type: none"> <li>- Technology needs to keep up to face future students</li> <li>- It services a diverse audience</li> <li>- Future employment to be considered</li> </ul> </li> <li>▪ <i>Technology accommodates different learning styles</i></li> </ul>

Table 1 (Continue)

Creating a learning platform by using technology	Impact on learning in higher education using a hybrid study approach (research results)
<b>1. Traditional as opposed to learning with technology</b> <b>2. The promotion of interaction and feedback</b>	<ul style="list-style-type: none"> <li>▪ <i>Type of teaching/learning depends on program content</i></li> <li>▪ <i>Training required for first-time users of technology</i></li> <li>▪ <i>Challenges for students</i></li> <li>- Few students fully utilize student to student opportunities</li> <li>- Interaction and availability of tutors a concern</li> <li>- Feedback from tutors sometimes generic and clinical</li> <li>▪ <i>Challenges for tutors</i></li> <li>- Promoting interaction between student and institution</li> <li>- Building relationships with students</li> <li>- Keeping up with changes in technology</li> <li>▪ <i>Challenges for management</i></li> <li>- Arranging an appropriate orientation program</li> <li>- Student support (administrative and technical support)</li> <li>- Engagement beyond geographical/institutional boundaries</li> <li>- Student retention through rich learning experience</li> </ul>
<b>3. Other challenges in using technology for learning</b> <ul style="list-style-type: none"> <li>▪ <b>Adjusting to changes in technology</b></li> <li>▪ <b>Practical application of learned theory</b></li> <li>▪ <b>Netiquette</b></li> <li>▪ <b>Assessment without direct supervision</b></li> <li>▪ <b>Learning by the use of technology not fit for all</b></li> <li>▪ <b>Inferior or superior qualification</b></li> <li>▪ <b>Logistical reasons</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Challenges for students/tutors and management</i></li> <li>▪ Rapid adjustment of various learning related aspects</li> <li>▪ Certain study fields require both online and classroom learning</li> <li>▪ The quality of postings questioned</li> <li>▪ Even with internal and external quality control, assessment is questioned</li> <li>▪ Supporting face-to-face approach with integration of technology</li> <li>▪ Perception that qualification through online learning is inferior</li> <li>▪ Remote students, network strengths, upgrading of technology</li> </ul>

## CONCLUSION

This study focused on the experiences of students, tutors, and institutional management when using technology in adult learning. The findings from the study largely concurred that technology interaction presented meaningful and significant learning when technology is used as a dynamic ingredient in the teaching–learning environment. Moreover, the quality of the learning when using technology was improved when the learning content had been customized according to students’ capabilities, personalities, expectations, and learning styles. This implies that a one-for-all learning approach in adult learning is not the best option for the current needs of society and does not foster an inclusive learning approach.

This study therefore found that there is a need to reform teaching and learning at South African and American institutions that employ technology in higher education. Moreover, the development of an assessment model when using technology is suggested to assess online activities, collaboration, and interaction. However, longitudinal studies are needed for the development of an explicit international quality management framework for the use of technology in learning and a hybrid study model for higher education.

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## **Perceived Teachers' Self-disclosure, Writing Performance and Gender of Malaysian ESL Undergraduates**

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### **ABSTRACT**

This exploratory study aimed to determine the relationship between perceived teacher self-disclosure, writing performance, and gender of Malaysian English as a Second Language (ESL) undergraduates. A self-administered questionnaire was distributed to 75 students who had enrolled in a university writing course at the end of their terms. Fifty-seven students had responded. The Perceived Teachers' Self-Disclosure Scale, which indexes three aspects of teacher self-disclosure namely amount, relevance, and negativity was used to determine the undergraduates' perceptions of their perceived teachers' self-disclosure. Scores for writing performance were gathered from the results obtained by the students in their final examination for the writing course. The relationship between perceived teacher self-disclosure and writing performance was analyzed using the Pearson Product-moment Correlations test. The difference between perceived teacher self-disclosure and gender was analyzed using the independent sample *t*-test. The results showed a small, positive correlation between two aspects of teacher self-disclosure (amount and relevance) and writing performance. The results from this study demonstrated that ESL students perceived that relevant teacher self-disclosure, relating to course content, had important

implications for their writing performance. Thus, teacher self-disclosure is an important element of classroom instruction that could be used to enhance content knowledge, especially in idea generating, self-voice and opinion among ESL students in a writing class. The results also showed a significant difference in one dimension of teacher self-disclosure, negativity, and gender. Further comprehensive studies should be conducted

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to gauge the implications of perceived teachers' self-disclosure to the teaching and learning aspects in ESL writing classrooms.

*Keywords:* ESL undergraduates, negativity, perceived teachers' self-disclosure, relevance, writing performance

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## INTRODUCTION

As learning is aided by mediating adults (Tan, 2013), teachers are a significant factor that enable learning in most cultures. As such, in the English as a Second Language (ESL) classroom, teachers play a profound role not only as educators, but also as facilitators to disperse knowledge to their students. Teachers' socio-communicative behaviors have considerable effect on students' emotional development and their cognitive aspect of learning (Wang & Dishion, 2012). One such behavior is self-disclosure, which is common in everyday interpersonal conversations and one that dictates the nature of social interactions. Through self-disclosure, teachers impart their personal experiences, stories and opinions as information to clarify and explain course content to their students (Downs, Javidi, & Nussbaum, 1988; Webb, 2014).

Chala and Chapeton (2012) and Hyland (2003) pointed out that writing was not only the sole production of functional linguistics but also social discourse. They contended that a person's literacy was socially situated as they were controlled by factors such as history, time, space, and the culture where it was acquired. As such, a writer's social experiences and interpretations are

important tenets of his thoughts as they are reproduced in the form of written and reading texts. In the social constructionist's perspective, it is pertinent that teachers and students consistently construct meanings through teacher narratives, dialogues, and humor. Thus, the socially constructed experiences of students are transferred into second language (L2) writing as prior knowledge and content knowledge by the ESL students. This is important as students in universities are expected to produce writing that is specific to their disciplines and the social discourse that they are in.

In Malaysian universities, academic writing courses are offered to teach undergraduates to produce writing that fulfills the required writing norms of the academic fields that they are pursuing. As students enter tertiary education in Malaysia, their writing tasks become more demanding as they are required to comprehend academic texts, prepare assignments and write research papers. In order to produce written work that is clear, matured, meaningful and coherently expressed with the required academic vocabulary, they need to employ an array of skills such as summarizing, synthesizing, paraphrasing as well as citing and referencing. Adding to that, in most private institutions of higher learning, the medium of instruction is English; therefore, students who predominantly come from the Bahasa Melayu-based national schools are often plagued with many problems such as limited vocabulary, lack of knowledge in word usage, word order, and transferring of information from L1 to L2 (Chan &

Abdullah, 2004). Therefore, ESL writing is often seen as difficult and problematic, contributing to negative attitudes, low motivation and poor writing performance among Malaysian undergraduates (David, Siew, & Azman, 2015; Mah & Gek, 2015; Maarof & Murat, 2013). The challenges faced by these students point to the need to find new ways of improving the pedagogical practices of writing instructors that can help to improve the writing performance of their students.

Furthermore, studies pertaining to teachers' self-disclosure as a tool of instructional communication in areas of ESL teaching and learning, especially ESL writing, are lacking. Past studies on teachers' self-disclosures in the ESL classroom have examined aspects of pre-service teachers' attitudes toward self-disclosure (Zhang, Shi, Luo, & Ma, 2008), speaking skills (Pishghadam & Torgabeh, 2009), learner autonomy (Serag, 2011), content relevance (Shrodt, 2013), attitude toward language learning (Farani & Fatemi, 2014), and appropriateness of teacher's self-disclosures (Rahimi & Bigdeli, 2016).

Hence, this study aimed to fill the research gap by determining if there was a relationship between perceived teachers' self-disclosure (PTSD), gender and the writing performance of ESL undergraduates based on the three aspects of PTSD proposed by Martin and Cayanus (2008), which are amount, relevance and negativity. The study was guided by the following research questions:

- Is there a significant relationship between PTSD and ESL undergraduates' writing performance?
- Is there a significant difference between PTSD and gender?

This study's framework was represented by two variables: (1) perceived teachers' self-disclosure (amount, relevance and negativity) that is the independent variable, and (2) writing performance that is the dependent variable. The conceptual framework (Figure 1) is explained by the relationship between perceived teachers' self-disclosure and writing performance. Based on the above, the null hypotheses were:

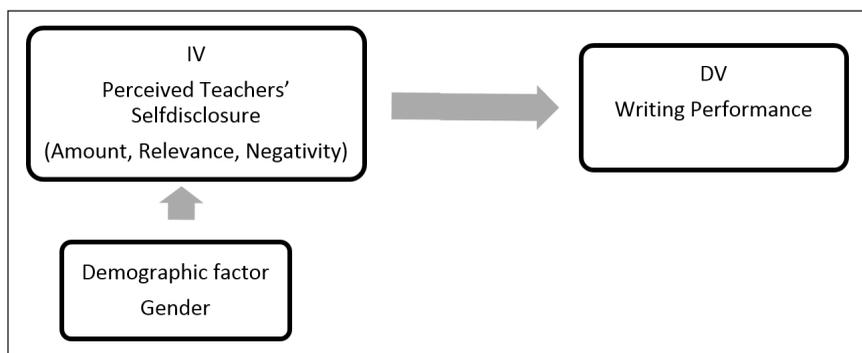


Figure 1. Conceptual framework

H<sub>0</sub>: There is no positive relationship between perceived teachers' self-disclosure (amount, relevance and negativity) and undergraduates' writing performance.

H<sub>0</sub>: There is no significant difference between perceived teachers' self-disclosure (amount, relevance and negativity) and gender.

### **Writing Skills in Higher Education Institutions in Malaysia**

The English language is the medium of instruction in most universities in Malaysia. As such, students often have to access learning materials in the English language. They also have to read a wide variety of content materials, and produce reports and project works in English. In the teaching and learning of ESL, it is important for students to master the four crucial language skills, which are listening, speaking, reading, and writing. In order to equip undergraduate students with the required linguistic competence in the English language, most Malaysian universities offer English language courses to their students (Zin & Rafik-Galea, 2010). Upon entering universities, students are required to undergo compulsory proficiency courses to enhance their English language skills such as the Intensive English programs. These are offered as prerequisite courses before students enroll into English courses for specific or academic purposes. These courses, for example, Academic Writing, or Communication and Study Skills, equip students with the necessary skills needed

to handle course and reference materials relevant to the writing conventions of the student's area of study (Wong & Thang, 2008). English for Occupational Purposes (EOPs) courses may also be offered to students. According to Sarudin et al., (2013), the EOP courses are an initiative of the higher educational institutions in the effort to equip their students with employability skills such as soft-skills, critical thinking and problem solving and effective communication. These courses include Communicative English, Business English, Technical Writing, Report Writing, Writing for Public Relations, and Feature Writing, among others.

### **Factors Contributing to Poor Writing Performance among Malaysian ESL Undergraduates**

Poor writing performance among Malaysian ESL undergraduates are contributed by factors such as lack of writing readiness among undergraduates (Nik, Hamzah, & Rafidee, 2010), the inability to gauge university expectations (Giridharan, 2012) and the difficulty in producing ideas (Hiew, 2012). In a diagnostic study conducted on 69 undergraduates at a Malaysian university on students' written summaries, Ashrafzadeh and Nimehchisalem (2015) reported that undergraduates lacked organization and vocabulary skills that contributed to ineffective paraphrasing ability in ESL summary writing. Kho-Yar and Tan (2015), on the other hand, found that undergraduates had difficulties in meaningful application of grammar in their writing, resulting in

writing that lacked grammatical accuracy. In a survey conducted on 138 first year Malaysian undergraduates from various faculties, David, Siew, and Azman (2015) found that the respondents believed writing as the most difficult task to master, citing lack of self-efficacy, vocabulary, exposure, social communication, and weak syntax as contributing to their low proficiency in ESL writing. In gauging factors of poor writing performance among UiTM undergraduates, Mah and Gek (2015) conducted a systematic literature review on SIL's learner domain and outlined seven factors that contributed to poor writing performance. They included writing complexity, literacy, information literacy, students' proficiency levels, critical thinking abilities, inter-language interference, and writing anxiety. Poor writing performance in ESL writing was also contributed by syntactic errors contributed by students' first language interference, grammar, vocabulary repetition, lexical choice and poor sentence skills (Gedion, Tati, & Peter, 2016).

### **Perceived Teachers' Self-disclosure**

Self-disclosure is the central element of Irvin Altman and Taylor's (1973) Social Penetration Theory. Griffin (2010) defined Social Penetration Theory as "the process of developing deeper intimacy with another person through mutual self-disclosure" (p.114), while Jourard (1971), Cozby (1973), Wheelless and Grotz (1976) explained that self-disclosure was the exchange of any messages about the self that a person communicated to one another on the basis

of trust and interpersonal solidarity. The variety of topics (breadth) and the intimate details (depth) of the information shared between two or more individuals determines the nature of social relationships. Using the "onion model", Altman and Taylor (1987) demonstrated that people's interpersonal relationships gradually moved with the exchanging (disclosure) of their personal information, akin to the peeling of the layers of an onion. They suggested that relationships developed as the outer layers of the onion, which connoted the general information of oneself was disclosed to the core layers which connoted the most intimate information of a person. These exchanges are usually mutual and are governed by the mechanism of cost and rewards. When disclosures are rewarding, more information is disclosed between the communicators. When the disclosures are deemed as costly, the relationships are discontinued.

Teachers, without doubt, are the first and foremost point of contact for students in the educational setting. Whitaker (2004) asserted that the teacher-student relationship was vital to improve education. In order to enable the transfer of knowledge, explaining and elaborating course content, clarifying course expectations, ensuring proper feedback mechanisms are established and to test out the efficiency of course outcomes, teachers need to work interdependently with their students.

According to Sorenson (1989), teachers spend most of their classroom contact hours by conversing with their students, while

teaching, instructing or informing. This interaction builds an ongoing interpersonal relationship between teachers and students alike. For example, teachers may voice out their opinions, emotions, or experiences while explaining course content, important concepts or exemplifications. Therefore, teachers' self-disclosure is the "teacher statements made in the classroom about oneself that reveals information that would otherwise be inaccessible to students," (Sorenson, 1989, p. 260).

Allport (1996) defined perception as the way one evaluated or judged others. In the social front, Baron and Byrne (1997) defined perception as a social behavior through which we tried to learn and understand others. Marzano and Marzano (2008) emphasized that teachers must also be aware that the positive attitudes they reflected in class such as showing teaching enthusiasm and creating a pleasant atmosphere in the classroom garnered positive outcomes from students. Stipek (2002) observed that when students had positive perceptions toward their teachers' behaviors, they performed better than their peers who had a negative predisposition toward their teachers. If perceptions are positive, it leads to favorable behavioral, cognitive, or relational outcomes (Cayanus, Martin, & Weber, 2003; Cayanus & Martin, 2008). Therefore, this study posits that when ESL students perceived their teachers' self-disclosures as positive, it would improve the overall learning atmosphere, which would improve their academic performance.

It is important to point out that ESL learners are faced by a number of challenges throughout their language learning processes. According to Krashen (1981), apart from linguistic limitations, second language learners often have to deal with negative psychological and emotional factors such as attitude, motivation, stress, anxiety and self-beliefs. Mazer, McKenna-Buchanan, Quinlan, and Titsworth (2014) reported that learners exhibited negative emotions when teachers lacked immediacy and positive communicative behaviors. Thus, teachers need to eliminate these factors from hindering the students' learning process especially in improving their writing performance.

Studies done by Hartlep (2001) and Deiro (2005) showed that perceived teachers' self-disclosure had a positive impact on the overall class environment. Classes where students reported positive perceptions toward their teachers' self-disclosure reported better understanding, respectfulness to teachers, improved examination performance and recall of lecture materials. Shrodt (2013) conducted a study on 362 undergraduates to test the extent to which students were comfortable with teachers' self-disclosure and content relevance. The results indicated that content relevance emerged as the moderating factor between appropriate teacher self-disclosure and credibility. The extent of students' comfort with teacher's self-disclosure, on the other hand, moderated students' perceptions on appropriateness of teachers'

self-disclosure, instructor competency, and trustworthiness. The findings of this study confirm the findings of Downs et al. (1988), and Webb (2014) where relevance is an important aspect of perceived teachers' self-disclosure in explaining course content, which in turn increased credibility and maintained students' attentiveness in class. Relevance also was reported to correspond positively with constructs such as students' trait motivation (Frymier & Schulman, 1995) and course interest (Cayanus et al., 2003).

Teachers' self-disclosure has also been studied in the area of language learning. In a quasi-experimental study conducted on a group of 48 female students who were enrolled in a 22-session intermediate level English class, Farani and Fatemi (2014) had studied the impact of teachers' self-disclosure on EFL students' attitude toward language learning. In the experimental group, the teacher was instructed to self-disclose on the challenges he or she faced as a language learner. An attitude questionnaire was administered as the pre-test and post-test. A significant difference was reported in the mean scores of the pre-test and post-test for attitude among students from the experimental group. Therefore, this study concluded that teachers' self-disclosure had a positive impact on the students' attitude toward English language learning. The researchers also had observed students in the experimental group and recorded their reactions and feedback to their teachers' self-disclosures. They found that when the teachers self-disclosed about their

language learning difficulties, the students vocalized their concerns openly. When the students became eager to communicate with their teachers, it also improved class participation.

Similar effects of teachers' self-disclosure had also been studied in another quasi-experimental study conducted on the speaking skills of EFL learners by Pishghadam and Torghabeh (2009). A 5-point scale teacher self-disclosure questionnaire (Goldstein & Bennasi, 1994) was distributed to 60 female university students aged 19-29 years who were intermediate-level English language learners. The IELTS (2006) speaking module was used to measure the students' speaking abilities as pre-test and post-tests. Teachers in the experimental group were instructed to self-disclose information on their profession, attitudes, feelings and obstacles they faced. Students were then interviewed to gauge the effect of teachers' self-disclosure on their speaking ability. Students in the experimental group felt that their teachers shared more information than others. They also demonstrated active turn taking and were more conversant in classroom discussions, expressive and asked more questions. The results from the speaking test showed improvements among the students in the experimental groups. This implies that teachers' self-disclosure is an important factor that eliminated negative emotional issues such as stress and anxiety during face-to-face communication with teachers during speaking tests.

### Teachers' Self-disclosure and Gender

Understanding gender dynamics is important to establish successful social interactions (Gaia, 2013) as experiences of intimacy within interpersonal relationships are innate to both the physical and psychological well-being of individuals. Past research on self-disclosure and gender found that women generally self-disclosed more than men (Cooper & Simmonds, 2003; Dindia, 2000; Dindia & Allen, 1992). In contrast to previous findings, Rahimi and Bigdeli (2016) found that there was no significant difference recorded in the perceptions on the appropriateness of self-disclosure between male and female Iranian teachers. Similarly, Paluckaitė and Žardeckaitė-Matulaitienė (2016) had conducted a focus group interview among 226 male and female students and 51 male and female teachers to analyze the differences in the perceived appropriateness of teachers' self-disclosure. Their study surmised that both male and female teachers and students similarly perceived teachers' self-disclosure as a knowledge-building and personal experience sharing process. However, the interviewees contended that teachers' self-disclosures should be relevant, less frequent, and positive.

### MATERIALS AND METHODS

A quantitative methodology was employed to conduct this study. A self-administered questionnaire was used to collect the data. 75 final year Malaysian undergraduates enrolled in an advanced level writing program at a private institution of higher

learning were selected through purposive sampling. Respondents were required to write their ID numbers on the survey form in order to record the final scores they had obtained for this subject. A total of 66 questionnaires were returned but only 57 ( $N=57$ ) were deemed usable for this study. Forms bearing the respondents' names, returned blank with unmarked responses and those missing were accounted as unusable. The respondents consisted of 17 male and 40 female students.

The students' final examination scores from the advanced writing course were collected and classified as *Low Performance* (0–49), *Moderate Performance* (50–69), and *High Performance* (70–100) in accordance with the participating private higher institution's internal scoring range. The average score obtained ( $M=2.05$ ) for the course was moderate performance (50%–69%).

Cyanus and Martin's (2008) Perceived Teacher Self-Disclosure Scale was adopted in this study to measure the students' perceived teachers' self-disclosure. It comprises 14 items (Amount (items 1–4), Relevance (items 5–9) and Negativity (items 10–14)) and uses the Likert scale that ranges from 1 (Completely Disagree), 2 (Disagree), 3 (Moderately Disagree), 4 (Undecided), 5 (Moderately Agree), 6 (Agree) to 7 (Completely Agree) to gather respondents' level of agreement to the statements. The reliability ( $\alpha$  values) of this scale is 0.80 for amount, 0.88 for relevance and 0.84 for negativity. The questionnaire specifically measures three domains of

perceived teachers' self-disclosure, in relation to classroom and course content disclosures. They are amount, which are the opinions and preferences on an array of categories or topics that teachers disclose in the classroom. These are measured by statements such as "My instructor often gives his/her opinions about current events." Relevance, which is the student's perceptions of whether or not the teachers' self-disclosure is useful and relevant to course content, are measured by statements such as "My instructor uses his/her own experiences to introduce a concept." Also termed as "valence" (Lannutti & Strauman, 2006), negativity includes the positive or negative information that teachers reveal about themselves to their students. These are measured by statements such as "My instructor usually reveals undesirable things about him/herself."

### Data Analysis

The Pearson Product-moment Correlations was used to determine the relationship between PTSD and writing performance and answer the first research question. An independent samples *t*-test was used to determine the difference between PTSD and writing performance of the male and female students and answer the second research question.

## RESULTS

The results of the study are presented based on the order of the two research questions guiding the study as previously stated.

### (RQ1) Relationship between Perceived Teachers' Self-disclosure and Writing Performance

The results in Table 1 show that there was a moderately negative relationship between the overall PTSD and the students' writing performance which was  $r = -0.50$ ,  $n = 57$ ,  $p \leq 0.05$ . Although the first null hypothesis which stated that there was no positive relationship between perceived teachers' self-disclosure and undergraduates' writing performance had been accepted, a closer analysis of the three aspects of PTSD of amount, relevance, and negativity and the students' writing performance revealed different correlations. The Pearson product-moment correlation coefficient analysis indicated that there was a slight positive relationship between amount and the students' writing performance which was  $r = 0.171$ ,  $n = 57$ ,  $p \leq 0.05$ . This suggested that students positively identified with their teachers' attitudes, opinions, or preferences toward the disclosed topics, therefore perceiving them favorably. The results also indicated a slight positive relationship between relevance and the students' writing performance which was  $r = 0.125$ ,  $n = 57$ ,  $p \leq 0.05$ . This suggests that the students perceived the disclosed topics as related to the course content. However, the results indicated a negative relationship between negativity and students' writing performance which was  $r = -0.219$ ,  $n = 57$ ,  $p \leq 0.05$ . This suggested that teachers generally refrained from making negative disclosures about themselves to their students.

Table 1  
*Relationship between perceived teachers' self-disclosure, amount, relevance, negativity and writing performance*

	1	2	3	4
1. Total PTSD	-0.50**			
2. Total Amount		0.171**		
3. Total Relevance			0.125**	
4. Total Negativity				-0.219**

\*\* $p \leq 0.05$  (two-tailed)

### **(RQ2) Difference between Male and Female Undergraduates' Perceptions toward Teachers' Self-disclosure in Terms of Amount, Relevance and Negativity**

In relation to the second research question, the independent samples *t*-test conducted in order to determine whether there was a difference between the male and female undergraduates' perceived teachers' self-disclosure yielded the results as shown in Table 2. The results indicated that the Sig. (two-tailed) value obtained was 0.791. Thus, there was no significant difference in the scores obtained for males ( $M=20.64$ ,  $SD=4.07$ ) and females ( $M=20.35$ ,  $SD=3.18$ );  $t(55) = 0.296$ ,  $p = 0.5$ , two-tailed for amount. Therefore, the null hypothesis which stated that there is no significant difference between perceived teachers' self-disclosure for amount and gender had to be accepted. This possibly means that

both male and female students similarly perceived that the frequency of teachers' self-disclosures and the array of topics their teacher shared in the writing classroom were well managed within the course context.

The result shown in Table 3 indicates that the Sig. (two-tailed) value obtained was 0.443. Thus, there was no significant difference in the scores obtained for males ( $M=26.76$ ,  $SD=3.96$ ) and females ( $M=27.62$ ,  $SD=3.80$ );  $t(55) = -0.772$ ,  $p = 0.5$ , two-tailed) for relevance. Therefore the null hypothesis that there is no significant difference between perceived teachers' self-disclosure for relevance and gender had to be accepted. This could mean that both male and female students similarly perceived that their teacher's personal opinions and experiences disclosed in the writing classroom were relevant to exemplifying, explaining, and elaborating the course content.

Table 2  
*Difference between male and female undergraduates' perceived teachers' self-disclosures for amount*

		<i>F</i>	Sig.	<i>t</i>	df	Sig. (two-tailed)
TotalAM	Equal variances assumed	1.519	0.223	0.296	55	0.768
	Equal variances not assumed			0.268	24.685	0.791

Table 3

*Difference between male and female undergraduates' perceived teachers' self-disclosures for relevance*

		<i>F</i>	Sig.	<i>t</i>	df	Sig. (two-tailed)
TotalRV	Equal variances assumed	0.270	0.605	-0.772	55	0.443
	Equal variances not assumed			-0.759	29.140	0.454

The result shown in Table 4 indicates that the Sig. (two-tailed) value obtained was 0.027. Thus, there was a significant difference in the scores obtained for males ( $M=7.78$ ,  $SD=1.18$ ) and females ( $M=11.52$ ,  $SD=5.94$ );  $t(55) = 2.27$ ,  $p = 0.5$ , two-tailed) for negativity. Therefore, the null hypothesis

stating that there is no significant difference between perceived teachers' self-disclosure for negativity and gender was rejected. This suggests that male and female students perceived their teachers' negative self-disclosures about themselves differently.

Table 4

*Difference between male and female undergraduates' perceived teachers' self-disclosures for negativity*

		<i>F</i>	Sig.	<i>t</i>	df	Sig. (two-tailed)
TotalNG	Equal variances assumed	3.787	.057	2.272	55	.027
	Equal variances not assumed			2.039	24.322	.052

## DISCUSSION

Teacher communication is an important instructional tool that influences the overall climate of teaching and learning. In Maarof and Munusamy's (2015) study of UKM undergraduates' learning experiences and difficulties concerning ESL, it is interesting to find that the undergraduates cited learning environment, quality of education, role of educators and teaching approaches as their main areas of concern. This study aimed to determine if there was a relationship between PTSD and ESL undergraduates' writing performance and if male and female undergraduates had different perceptions toward PTSD. The

results from this study is significant as it demonstrates that teachers did self-disclose in the ESL writing classroom, and as an instructional communication tool, is able to bridge the gap between teachers and students.

The first research question inquired whether there was a relationship between perceived teachers' self-disclosure, the aspects of amount, relevance and negativity and writing performance. The study found that perceived teacher self-disclosure had a positive impact on two domains that were amount and relevance. These results indicated that the amount of different topics of disclosures and the sharing of opinions

on those topics that the teachers disclosed in their classrooms helped students in their writing. Also, the teachers had self-disclosed their personal experiences while trying to exemplify, explain, and elaborate course content and link them to the real world. These relevant self-disclosures that were related to course content helped students to understand and internalize important concepts and ideas related to their learning. The results support the studies conducted by Frymier and Schulman (1995), Downs et al. (1988), and Cayanus, Martin, and Weber (2003). However, the findings from this study contradict those of Shrodt (2013), where relevance was deduced as less important than valence (positive statements). This present study indicates that amount and relevance are more significant in promoting learning in the ESL writing class. In contextualizing content to prior knowledge and the world at large, the teachers in this study employed self-disclosure during brainstorming sessions, idea development, when providing opinions during feedback and when explaining or exemplifying course content. The findings also showed that the students preferred disclosures that were relevant to course content and teaching material rather than other aspects of self-disclosure. The results also indicated that there was a negative relationship between the students' writing performance and negativity, implying that students perceived their teachers' self-disclosures as positive. This is explained by the fact that teachers are usually mindful of their disclosure topics and the depth of their disclosures, cautiously

adhering to instructional needs within the classroom context and professional limitations (Petronio, 2002).

The second research question inquired whether male and female undergraduates had different perceptions toward their teachers' self-disclosures. The results indicated that both male and female students perceived that there was no difference in their teachers' self-disclosures in terms of amount and relevance. This suggests that teachers' opinions and use of examples and experiences in explaining course content are neutral and is not affected by their own gender biases. However, the results also indicated that female students perceived their teachers' self-disclosures as more positive compared to the male students. Again, this study confirms the findings of Dindia and Allen, (1992), Dindia, (2000), and Cooper and Simmonds, (2003) that women are more positively inclined toward self-disclosure than men. Although the results of this study are in contrast with recent findings of Rahimi and Bigdeli (2016), and Paluckaitė and Žardeckaitė-Matulaitienė (2016), it must be acknowledged that teachers' self-disclosure and student outcomes are moderated by other variables in varying contexts such as age, the nature of disclosure and relationships, cultural boundaries, bias, and perceptions towards the discloser (Collins & Miller, 1994). The study also indicated that male and female students differ in their perceptions of teachers' self-disclosure. Because writing strategies are different between male and female students (Melor & Siti, 2014), further research should

be carried out to find out other aspects of PTSD that can improve instructional strategies when approaching male and female students in the ESL classroom.

## CONCLUSION

It was evident from this study that teachers do self-disclose in the Malaysian ESL classroom during the teaching process and self-disclosure has had an effect on the way students perceived their teachers. This study suggests that ELT practitioners can potentially use self-disclosure more actively and intentionally as an instructional communication tool in the writing classroom. In order to maximize the positive benefits of teacher self-disclosure on students' writing performance, ELT practitioners would need to ensure that the amount of topics for self-disclosure is sufficient and relevant to the course content. This study also suggests that the affective aspects of teaching and learning that could be conveyed through teachers' self-disclosures should be considered and implemented in the teaching and learning of ESL, apart from cognitive and behavioral aspects. This study also concludes that male and female students differ in their perceptions toward instructional and socio-communicative strategies of teachers. Since this study was limited to only three aspects of perceived teachers' self-disclosure, further research should also be conducted to find out other factors that are essential for a comprehensive understanding of teachers' self-disclosure and its impact to the teaching of ESL writing in the Malaysian classroom.

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## **Analysis of the Factors Influencing Job Burnout: Empirical Evidence from Spain**

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### **ABSTRACT**

In all professions, workers are exposed to manifestations of stress that if maintained, can result in the Burnout Syndrome, or Professional Exhaustion Syndrome, a psychosocial phenomenon that has increased in the last decades and which consists of a series of physical, emotional and behavioral symptoms. The present study sought to contribute to a growing body of research examining which variables affect the aforementioned syndrome. In order to accomplish this, a questionnaire, created *ad hoc*, was administered and empirical data was collected from 230 Spanish secondary school teachers. This data was tested with difference testing and the multiple regression method. The results revealed that there were more differences in burnout regarding the work-related variables than the sociodemographic ones. Specifically, the working situation and the relations with their colleagues and the board of the center were found to have a significant influence on burnout. The implications of findings for administrators are also discussed.

*Keywords:* Burnout, job, secondary teacher, work-related factors

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### **INTRODUCTION**

In order to face the goals imposed by the current regulations in the area of education, and achieve an integral development of the student, the educational institutions are facing new challenges which they respond to. The school is changing into a place where numerous claims related to social competence are appearing (Elias & Haynes, 2008; López-Haugen, 2006).

This change in the educational system is reflected in different aspects of their two main components: students and teachers.

Regarding the students, we can find diverse students (culture, skills, interests, motivations, expectations, familiar or social context, etc.), with a remarkable lack of discipline and lack of support from their parents towards their educational needs, who often find themselves in overpopulated classrooms with students who, in many cases, remain in the school against their will. In this regard, the situation of the secondary education in Spain reflects a very high dropout rate by the students, of a 20% (Eurostat, 2016).

The previously mentioned aspects lead us to classrooms where the problems a teacher has to face are, often, conflicts far removed from the typical work of a teacher (who does not have the proper training that would have given him the necessary skills to act in these situations). According to Esteve (2002), one of the deficiencies is that teachers are trained to teach their classes in a certain way, but these conditions are far removed from the reality they have to face in schools.

Sometimes, teachers find themselves in the classroom not because it is their vocation, but because of a series of events that took them to choose education as their only work option, often having to teach subjects that are not fit to their degrees. On the other hand, the changes in social structures such as families have caused the transfer of teaching responsibilities to the

school (Gil-Monte, 2005). Teachers notice that the parents avoid their responsibilities and delegate their children's education on them, having to perform the role of parents, advisors, social workers, entertainers, educators and psychologists.

Besides, in a society as competitive as this, many teachers feel the pressure due to the increasing demands related to their knowledge and skills. This way, we are witnesses to what is known as information society, or knowledge society, characterized by a wide volume of information, new requirements of integration of Information and Communication Technologies (ICT) appearing in the educational institutions, not only regarding their knowledge, but also in regards to their good use and their inclusion in the learning process (Aslan & Zhu, 2017; Kabakci & Coklar, 2014; Wastiau et al., 2013; Yap, Neo, & Neo, 2016).

For all of the above reasons, it is necessary to review the performance suggestions inside the educational centers, as well as review the training methods for the teachers, highlighting that besides all the pedagogical and psychological knowledge already acquired by the teachers as part of their academic training, they also have to acquire other skills aimed at performing other roles that society is handing over to them, and which, in many cases, divert from their pedagogical role (Beck & Gargiulo, 2001; Boydak, 2009; Can, 2009; Merellano-Navarro, Almonacid-Fierro, Moreno-Doña, & Castro-Jaque, 2016; Pandina, Callahan, & Urquhart, 2009).

According to Pérez-García, Latorre-Medina, and Blanco-Encomienda (2015), a teacher who possesses the necessary knowledge and skills to teach can achieve his expectations, without allowing his work to interfere with his personal life. One of these negative interferences results in the aforementioned burnout syndrome or professional exhaustion syndrome.

Many factors might be associated with burnout. In this line, previous research has studied the relationship between the syndrome and sociodemographic variables in different professions (Iglesias, Vallejo, & Fuentes, 2010; Kremer, 2016; Reinardy, 2011; Tarcan, Tarcan, & Top, 2017). Also, several work-related factors have been identified as contributing to burnout (Chambers, Frampton, Barclay, & McKee, 2016; Silva, Lopes, Pastor-Valero, & Menezes, 2016; Spinelli, Fernstrom, Galos, & Britt, 2016; Verweij et al., 2017). Thus, the purpose of this study has been to explore the factors that influence teachers' burnout, including personal and work-related issues, in order to provide basic information for preventing this syndrome.

### **Theoretical Framework**

**Concept of Burnout.** The burnout expression was first mentioned by Greene (1960) and coined by Freudenberg (1974). Afterwards, it was accepted by the science community with the definition provided by Maslach (1982), which describes it as a prolonged response to chronic emotional and interpersonal stressors on the job.

As a research topic, it was in the seventies in United States when burnout started to gain importance. In Europe, its study began in the eighties, especially in the United Kingdom, Holland, Belgium, Germany, Scandinavia and Finland. In the middle of the nineties it became popular in the rest of Western and Eastern Europe, in Asia, Middle East, Latin-America, Australia, and New-Zealand, making an impact on Africa, China and India in the twenty first century (Schaufeli, Bakker, & Rhenen, 2009).

The main explanatory models of this syndrome come from Social Psychology, which is more focused on the perception of the subject regarding his interactions, and from Organizational Psychology, which underlines the organizational variables in the working context (Aghazadeh, Ameri, & Hasani, 2016; Chris & Adebayo, 2010).

This syndrome is not recognized in the Diagnostic and Statistical Manual of Mental Disorders (World Health Organization [WHO], 1994), but it is recognized in the International Classification of Illnesses (Bellingrath, 2008), within the section of the problems related to the management of life obstacles. In some countries the burnout syndrome patients are diagnosed as suffering from a type of mental illness (Maslach, Schaufeli, & Leiter, 2001). The burnout is currently a psychosocial risk, which no profession can be considered exempt of suffering, although it appears especially in those professions linked to services, such as education, health assistance, social

and professional help, and other types of services to people with physical, emotional or training needs.

According to Maslach et al. (2001), burnout is induced by three main components: emotional exhaustion, depersonalization, and low self-fulfillment. Research has indicated that these components of burnout cannot be added up to a single measure (Byrne, 1994; Lee & Ashforth, 1996), hence we have chosen the three dimensions to be investigated in the study. Delving into these dimensions, the emotional exhaustion is related to the feeling of being overwhelmed by the demands and being unable to respond to other people's demands, distancing yourself from your work, both emotionally and cognitively; the depersonalization refers to the loss of ability to empathize by the individual, moodiness, the development of cold attitudes, feelings and answers, being distant from others, especially with your colleagues; and the low self-fulfillment is a feeling of failure related to work success, as it is experienced as a feeling of inability, disillusion and helplessness.

Van Droogenbroeck, Spruyt, and Vanroelen (2014) found that the three dimensions of burnout were linked to each other. The link between emotional exhaustion and depersonalization was very strong. Thus, higher levels of emotional exhaustion were associated with higher levels of depersonalization. Furthermore, higher levels of depersonalization were associated with lower self-fulfillment.

Previous research has suggested that the dimensions of burnout are related to personal issues, such as gender and age, and to work-related variables (De Heus & Diekstra, 1999; Grayson & Alvarez, 2008; Greenglass, Burke, & Ondrack, 1990; Kokkinos, 2007; Lau, Yuen, & Chan, 2005; Lauermann & König, 2016). In most studies men appear to have higher levels of depersonalization whereas women are found more emotionally exhausted and have stronger feelings of low self-fulfillment. As for age, older respondents report higher levels of depersonalization and emotional exhaustion, and more experience of low self-fulfillment. Regarding work-related factors, a significant positive correlation between years of professional experience and depersonalization, emotional exhaustion, and the perception of low self-fulfillment has been found.

**Burnout in the Teaching Profession.** There is a very close connection between the emotions that the teachers develop inside their work life, and their own life outside the classroom. Teachers find themselves subdued to numerous demands by the board members, parents and students, and they also have to adapt to constant changes, such as the new study plans. These constant changes to which they see themselves subdued produce uncertainty, and in many cases a series of contradictions at an emotional level, which build the appearance and development of the burnout. Besides, as a consequence of some stressors at the teachers' workplace, some

other physiological distresses can appear, such as ulcers, sleeplessness, headaches, muscular aches produced by tension, etc. (Durán, Extremera, & Rey, 2001).

Various authors, such as Aydogan, Atilla, and Bayram (2009), Ayuso and Guillén (2008), D'Anello, D'Orazio, Barreat, and Escalante (2009), Farber (1991), Freitas and Lima (2016), and Moreno, Garrosa, and González (2000) did research work about the circumstances surrounding the teaching profession, which worsen the burnout problems more than in other professions. In this respect, note that:

- The teacher works with individuals who may not want to work with him nor accept benefiting from his efforts and mastery.
- Requires a constant personal contact and interaction with the students, contact that must be always expert, patient, sensitive, and useful.
- The work of the teacher is always subjected to observation and evaluation.
- The teacher must get trained continuously.
- The teachers' salaries are lower than that of many other jobs that require the same level of expertise, pushing teachers in some cases to increase their salaries by doing other jobs.

Even though all the workers must be efficient and competent in their jobs, the human services professions, such as teaching has expectations about helping

others and feeling useful. In the case of the teachers, they aspire to achieve the growth and personal development of their students. The inability to fulfill those expectations can easily make the teacher suffer the burnout syndrome.

And if the teachers feel unhappy with themselves and unfulfilled with their results, they will show signs of emotional exhaustion, which will possibly make them question their efficiency and think they cannot give more of themselves (Aloe, Amo, & Shanahan, 2014; Durán, Extremera, Rey, Fernández-Berrocal, & Montalbán, 2006; Fernet, Guay, Senécal, & Austin, 2012; Gil-Monte, Peiró, & Valcárcel, 1998; Queiros, Carlotto, Kaiseler, Dias, & Pereira, 2013).

## **METHOD**

### **Participants**

The population of the study consisted of 523 secondary school teachers from the schools located in the Autonomous City of Ceuta, Spain. Considering a confidence level of 95% and a margin of sampling error of 5%, a minimum sample size of 222 was required. Finally, a stratified random sample of 230 secondary school teachers from 10 schools participated in this study. Of those 230 participants, 54% were women and 46% men. The biggest fraction of the sample were teachers with ages between 40 and 49 years old (32%), the married group (68%) being the predominant marital status. Regarding the teaching experience of the sample, 34% had work experience of more than 20 years, and most of the teachers surveyed were on a permanent working situation (69%).

## **Instrument**

The instrument used on this research was a survey made, ad hoc, after reviewing the scientific literature on this subject. Although some items were constructed by the researchers, most of them were adapted from previous instruments: Holland Burnout Assessment Survey (Holland & Michael, 1993); Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996); and the Teacher Burnout Scale (Seidman & Zager, 1986).

The survey included 41 items and consisted of two blocks: a first block composed of 4 social-demographic variables and 4 related with work, and a second block composed of 41 premises related to the burnout syndrome, comprehending four dimensions: physical repercussions (13 items), emotional exhaustion (10 items), depersonalization (7 items), and low self-fulfillment (11 items), rated on a 4-point scale ranging from 1 = "never"; 2 = "sometimes"; 3 = "often"; and 4 = "always".

Note that although previous research has commonly considered three dimensions of burnout, we have taken into consideration an additional dimension that is physical repercussions, which refers to the corporal results caused by the syndrome. In this manner, attending to the physical consequences together with the other three dimensions, we deal with the syndrome in a more complete way including the symptoms at an emotional level along with the symptoms at a physical level, since this syndrome ailment brings along not only psychological but also physical

consequences, comprising mental health, relationships, and physical health.

To guarantee the validity of the instrument being used on this research, first of all we analyzed the validity of the content through the experts' judgment, and secondly, the construct validity through the exploratory factor analysis. Prior to this we made the Barlett Sphericity Test ( $\chi^2=3415.460$  and  $p=0.000$ ) and we obtained the measure of sampling adequacy by Kaiser-Meyer-Olkin ( $KMO=0.906$ ), and this proved the validity of the instrument.

In order to check the overall reliability of the questionnaire we resorted to the Cronbach's Alpha coefficient. The value obtained for the Cronbach's Alpha coefficient was 0.94, which proves that the reliability of the instrument used on this investigation is high. Note that for each of the four dimensions measured in the instrument, the Cronbach's Alpha was above 0.7, suggesting suitable index of internal consistency: physical repercussions (0.86), emotional exhaustion (0.87), depersonalization (0.75), and low self-fulfillment (0.76).

## **Research Design and Data Analysis**

This study is based on a transverse design, with a double component of a descriptive and analytical type, which has brought us closer to the reality of the object of study, compensating for the deficiencies that each component could have had. In order to do this, a quantitative research methodology was used, based on the method of surveys and the application of statistical tests (Creswell, 2009; Myers, Well, & Lorch,

2010). The data were analyzed using SPSS for Windows version 21.0.

On one hand, a descriptive analysis (frequency distribution, measures of central tendency and measures of variability) has been done in order to have a global vision of the data, so that we can have a better understanding of the opinions of the teachers being surveyed.

On the other hand, we have used the statistical inference in order to discover the existence of statistically significant differences in the answers offered by each of the samples composing the different demographic variables, in the different items. In order to conduct this analysis in the variables with two independent samples, such as gender, marital status, having children and their work situation, the Mann–Whitney U test has been used, and for the variables with more than two independent samples such as age, relation with the board, relation with the colleagues and the teaching experience, the Kruskal–Wallis test has been used.

Finally, in order to identify the determinant factors of the burnout, a multiple regression analysis was performed considering the variables found to be significant in the difference testing.

## RESULTS

### Descriptive Statistics

In order to investigate the level of burnout of the participants, the means and the standard deviations of the four burnout dimensions were obtained. The results are presented in Table 1.

Table 1  
*Means and standard deviations for burnout on the teaching profession*

Dimension	Mean	Std. Deviation
Physical repercussions	1.63	0.937
Emotional exhaustion	1.46	0.684
Depersonalization	1.47	0.718
Low self-fulfillment	1.83	0.808

From the values obtained, we observe that the dimensions “low self-fulfillment” and “physical repercussions” reach the highest scores on average, “sometimes” being the average and most frequent answer to the affirmations within these dimensions. This way, the lowest values of the average belong to the “emotional exhaustion” dimension, followed closely by the “depersonalization”. This shows that the feeling of inability and demotivation, together with the physical consequences caused by the syndrome, are the aspects most commonly found among the teachers surveyed.

Considering the results of the descriptive analysis obtained for the items of each dimension, it is worth mentioning that the highest averages are reached by the premises: “My school teachers are not encouraged to find new and creative solutions to the existing problems” ( $M=2.52$ ,  $SD=0.956$ ), “I miss some support services from the center to help solve the problems that can come up for the teachers” ( $M=2.18$ ,  $SD=0.905$ ) and “I consider that my work environment is uncomfortable” ( $M=2.11$ ,  $SD=0.951$ ); these three items belong to the dimension “low self-fulfillment”. After these stand out with the highest average scores these statements:

“The people I have to look after do not value the efforts I make for them” ( $M=2.08$ ;  $SD=0.732$ ), and “I have to force myself to not lose my patience” ( $M=2.07$ ,  $SD=0.740$ ); these two items belong to the dimension “depersonalization”. All of these items are related to the interaction of the teachers, whether with their students or with the other members of the educational institution.

Other items that present high values in the average are: “I feel that through my work I am not influencing other people’s lives” ( $M=1.97$ ,  $SD=0.841$ ), “I feel very depressed after working with students” ( $M=1.94$ ,  $SD=0.954$ ) and “It is difficult for me to face the problems brought up by my students” ( $M=1.87$ ,  $SD=0.613$ ), which belong to the dimensions “low self-fulfillment”, “physical repercussions” and “depersonalization”, respectively. These three items address the statements related to the interaction with students and the ability to solve the problems brought up by them.

Delving into the answering percentages obtained for the items of each dimension, it is worth mentioning that the highest values correspond to the option “never”. In this sense, for example, more than 70% of the sample happened to choose the option “never” for the items that contain statements such as “I am unhappy as a byproduct of my work” (emotional exhaustion), “I feel like quitting my job” (emotional exhaustion), or “I have a more insensitive behavior with people close to me when I perform this work” (depersonalization). This means that most of the teachers surveyed are not experiencing burnout. On the other

hand, the lowest percentages correspond to the alternative “always”. The fact that the extremes have the highest and lowest percentages is worth mentioning, since generally the survey respondents avoid these two extreme options, obtaining very little variation, it is what is known as “*central tendency bias*” (Heery & Noon, 2008), that in this study has not happened.

### **Inferential Statistics**

Differences in burnout according to individual and work-related variables were analyzed using the Mann–Whitney U and the Kruskal-Wallis tests. Table 2 displays the results of the inferential tests regarding the individual variables.

We can observe that of the four social-demographic variables, statistically significant differences exist only for age. Specifically, the oldest teachers show higher levels of burnout. Thus, by comparing the mean ranks for the other three variables we can confirm that the level of burnout shown by the Spanish teachers surveyed does not depend on their gender, their marital status or from having children or not.

On the other hand, Table 3 shows the results of the inferential tests regarding the work-related variables.

All the work-related variables were found to be significant, especially the work situation and the relationship with the rest of the teachers and the board members. Specifically, permanent workers show higher levels of burnout, the same as the teachers who have a bad or not so good

Table 2  
Differences in burnout according to sociodemographic variables

Variable	Characteristic	n (%)	Mean rank	<i>p</i>
Gender	Male	105 (0.46)	115.58	0.584
	Female	125 (0.54)	110.82	
Age	< 30	7 (0.03)	61.50	0.020*
	30-39	64 (0.28)	103.96	
	40-49	74 (0.32)	109.69	
	50-59	57 (0.25)	115.76	
	≥ 60	28 (0.12)	144.50	
Marital status	Single	74 (0.32)	112.86	0.859
	Married	156 (0.68)	114.53	
Child	Yes	153 (0.67)	115.17	0.705
	No	77 (0.33)	111.68	

Note. \* Significant at  $p < 0.05$ ; \*\* Significant at  $p < 0.01$

Table 3  
Differences in burnout according to the work-related variables

Variable	Characteristic	n (%)	Mean rank	<i>p</i>
Employment situation	Interim	71 (0.31)	96.19	0.006**
	Official	159 (0.69)	121.94	
Teaching experience	< 10 years	68 (0.30)	96.56	0.018*
	10-20 years	83 (0.36)	119.05	
	> 20 years	79 (0.34)	126.67	
Relationship with the board	Good	210 (0.91)	109.01	0.000**
	Regular	17 (0.08)	189.75	
	Bad	3 (0.01)	170.50	
Relationship with their peers	Good	213 (0.93)	108.60	0.000**
	Regular	13 (0.06)	202.42	
	Bad	4 (0.01)	163.25	

Note. \* Significant at  $p < 0.05$ ; \*\* Significant at  $p < 0.01$

relationship with the board members and with their colleagues. As for the experience of the teacher, teachers with more than 20 years of experience are the ones showing the highest levels of the syndrome, followed by those who have between 10 and 20 years of experience.

### Regression Analysis

Table 4 presents the results of the multiple regression analysis used to evaluate the strength of the relationship between teachers' burnout and each of the variables found to be significant in the difference testing.

Table 4  
*Linear regression analysis for influencing burnout*

Variable/Factor	$\beta$	SE	<i>t</i> ( <i>p</i> )	CI	VIF	<i>F</i> ( <i>p</i> )
Intercept	0.757	0.140	5.411 (.000)	(0.481, 1.033)		10.051 (0.000)
Age	0.052	0.032	1.610 (.109)	(-0.012, 0.115)	1.984	
Employment situation	0.135	0.063	2.139 (.034)	(0.011, 0.259)	1.488	
Teaching experience	-0.007	0.048	-0.142 (.887)	(-0.101, 0.087)	2.562	
Relationship with the board	0.373	0.093	4.003 (.000)	(0.189, 0.557)	1.271	
Relationship with their peers	0.389	0.077	5.043 (.000)	(0.237, 0.541)	1.245	

Note. SE: standard error; CI: confidence interval

In order to determine the presence of multicollinearity among independent variables, the Variance Inflation Factors (VIF) were calculated, all VIF values being well below the recommended cutoff of 10 (Kleinbaum, Kupper, & Muller, 1988; Neter, Wasserman, & Kutner, 1990).

Furthermore, the value of the *F*-statistic ( $p < 0.01$ ) indicates that the regression correctly maps the relationship between the dependent variable and the independent ones.

Finally, as can be seen from Table 4, the work situation ( $\beta = 0.135$ ,  $p < 0.05$ ), the relationship with the board members ( $\beta = 0.373$ ,  $p < 0.01$ ), and the relationship with their colleagues ( $\beta = 0.389$ ,  $p < 0.01$ ) have a significant influence on burnout. Specifically, teachers who found themselves in a comfortable work situation, by already being permanent workers, are the ones showing the highest levels of burnout, the same as those who have a bad relationship with the board members and their peers.

## DISCUSSION

The burnout syndrome has been studied from different perspectives in the last decades, which has made it possible to determine some of its possible causes. However, the influence, or lack of it, from a great amount of different social-demographic variables and related to the educational environment has not been demonstrated yet, in the way this study is demonstrating. It has also been found that it constitutes a problem that has repercussions as much in the individual as in the educational institution (Rubio & Guerrero, 2005).

This study has shown that there is no significant difference between male and female teachers, married and single teachers, nor between teacher with kids or without kids. This is in line with the research by Arvidsson, Håkansson, Karlson, Björk, and Persson (2016), who found, in a univariable model, that gender, marital status and having children were not associated with the rising levels of burnout. On the contrary, significant differences were found regarding the age of

teachers, as a unique sociodemographic variable, and the work-related variables, such as the teaching experience, the older and more experienced teachers being the ones who show the highest levels of burnout. This confirms previous research which identified that the seniority in a profession increases the risk of contracting the burnout syndrome (Cordes & Dougherty, 1993). In this respect, Klassen and Chiu (2011) found that experienced teachers reported higher levels of job stress than pre-service teachers, which could result in higher levels of burnout. A higher presence of the syndrome in experienced professionals may be related to the unfulfilled expectations and to the difficulty to glimpse possibilities of self-development in their present working conditions (Guedes & Gaspar, 2016).

Furthermore, the present study provides evidence supporting the importance that the teachers have for the relationship with the other members of their work environment, as it is highlighted by the social exchange theory (Cropanzano & Mitchell, 2005; Farganis, 2011; Ritzer, 2010). The findings reveal the important role played by the emotional management at work, since the teachers with a good relationship with the board members and with their colleagues are the ones who experience lower levels of burnout. This is consistent with the results of Milatz, Lüftenegger, and Schober (2015), which establish the influence of the social relationships maintained with the educational agents on the burnout syndrome. Along these lines, Mazur and Lynch (1989) and Byrne (1994) stated that

the lack of support from colleagues was associated with burnout. Also, Gil-Monte and Peiró (1997) already mentioned group strategies of intervention for the prevention and treatment of the burnout syndrome to promote social support with colleagues, without reaching the point of neediness or dependence, in order to diminish the feeling of loneliness and uneasiness. Furthermore, Betoret (2006) reported, for a sample of secondary school teachers, that the relationships with other teachers were one of the most relevant work-related predictors of burnout.

As found in this research, the support was inversely associated with the burnout experience, as it is a variable that can be used as a protective factor against the syndrome (Fiorilli et al., 2015; Pérez & Martín, 2004). Having a bad relationship with the management team and colleagues and, therefore, not having support for dealing with the multiple situations that can occur in the teaching practice, can contribute to the decrease of the optimism and the feeling of personal fulfillment on the part of the teaching staff (Avanzi, Schuh, Fraccaroli, & Van Dick, 2015; Norasmah & Chia, 2016; Otero-López, Castro, Santiago, & Villardefrancos, 2009; Van Droogenbroeck et al., 2014).

The results of the study further indicated a significant relationship between the work situation and the level of burnout, with the interim teachers experiencing the feelings close to burnout, less. This is in accordance with the research by Ayuso and Guillén (2008), who found lower levels

of burnout among interim teachers. This can be due to the fact that the stay of these teachers in a center is shorter than that of the permanent teaching staff or that not having a permanent position keeps them with new expectations, where the motivation and illusion accompanies them.

## CONCLUSION

When a person is not able to overcome the exhaustion generated by the work the burnout syndrome can appear. There are stressful situations in all professions that can generate different symptoms that affect the person, not only in the workplace, but also in their daily lives. However, there are some occupations that are at special risk of the development of burnout, such as the teaching profession. In the case of teachers, this deterioration can negatively affect the teaching-learning process, with the quality of teaching being adversely affected. Thus, it is necessary to act in order to prevent the onset of the syndrome.

Burnout has been associated with sociodemographic and work-related variables. Specifically, the age of teachers, their working situation and the relation with their colleagues and the board of the center were found to have a significant influence on burnout.

From the findings of this work, some implications for both research and practice can be deduced. Social support is identified as one of the main protective tools against the syndrome (Heaney & Israel, 2008), although its role may not be direct but a mediator (Hoglund, Klinge, & Hosan,

2015; Matud, Caballeira, López, Marrero, & Ibáñez, 2005). Therefore, it would be appropriate for schools to take measures to make teachers feel comfortable in their working environment because too often the well-being of teachers is ignored, and this induces teachers to be stressed and overwhelmed, negatively affecting the performance of their work, the quality of their teaching, and the way in which they interact with the students (Cook et al., 2017; Gantiva, Jaimes, & Villa, 2010; Thode, 1992).

Finally, note that one limitation of the study is the cross-sectional nature of data, which does not allow us to make assumptions about the causality, so a longitudinal study may be considered for future research. Moreover, as the current study is limited to a country, future studies need to be conducted in other countries in order to compare the findings obtained.

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## **Assessing Omani University Entrants' Critical Thinking Skills with the Cornell Class-Reasoning Test Form X**

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### **ABSTRACT**

This study examined the critical thinking skills of first year students at a public university in Oman to determine whether these skills were adequately developed at the school level. An adapted version of the Cornell Class-Reasoning Test Form X was administered to 60 students who had just graduated high school and entered the university. Descriptive analysis of test results revealed that participants had failed to master four of the five principles assessed by the test's item groups, while receiving scores that suggested neither mastery nor failure to master the remaining principle. The overall average correct percentage for the sample of 45.8% was comparable to results from grade 4 students in the United States offered by the test creators. Independent samples *t*-tests indicated statistically significant differences on overall test scores based on gender and level of study in the

English foundation program, although no differences based on age were found. The paper concludes by arguing that critical thinking needs to be better integrated into the curriculum in Oman's education system in order to adequately prepare learners for the demands of university study and the workforce.

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## INTRODUCTION

Critical thinking has recently become a more prominent objective of education systems across levels worldwide. Whether defined as a skill or a disposition, critical thinking is invariably an important component of all disciplines, necessitating its inclusion in various curricula. This is even more important in the current social and economic environment where graduates typically change jobs more often than in the past and where transferable skills remain paramount. Schools thus need to be able to make critical thinking a significant component of the curriculum, whether this is through integrating it with various disciplines, teaching it as a separate skill, or a combination of approaches.

Due to the importance of critical thinking skills for students' future academic and professional careers, Oman's Basic Education system places a heavy focus on developing these skills. Despite this emphasis, research from the sultanate suggests that Omani learners' critical thinking skills are not adequately developed during their high school studies, with a number of causes including learner attitude, teachers, the curriculum, and assessments, all being offered as potential contributors to this situation (AlKhoudary, 2015; Mehta & Al-Mahrooqi, 2015; Thakur & Al-Mahrooqi, 2015).

However, as of yet very little research from Oman has explicitly focused on the

extent to which high school students in the country have developed their critical thinking skills. This study sought to address this issue by administering the Cornell Class-Reasoning Test Form X to 60 Omani students who had recently graduated high school and entered the English preparatory program of Oman's only public university. Results were compared to benchmarks for different school grade levels offered by Ennis, Gardiner, Morrow, Paulus and Ringel (1964), and by McLellan's (2009) university students in the UAE who took the Cornell Conditional-Reasoning Test Form X, which was also developed by Ennis et al. Differences in test results based on gender, foundation program level, and age were also explored.

## LITERATURE REVIEW

A central problem surrounding critical thinking is that there is no consensus about its meaning, scope, or application. Introduced into education in the early twentieth century by scholars such as John Dewey, critical thinking became increasingly central to the study of education from the middle of the century through the works of Norris and Ennis (1989), Facione (1990), and Halpern (1998). Ennis (1987) defined critical thinking as "reasonable reflective thinking focused on deciding what to believe or do", while Norris and Ennis (1989) suggested that a critical thinking test should cover the various areas that employed inferences and the result of these inferences that could be included under the rubrics of induction and deduction.

Whether seen as identifying arguments and counter arguments or the skill of deducting from given information, the importance of critical thinking remains central to education at all levels. In response to this call, Fisher (1998) stated that creating a curriculum which placed “the development of thinking skills at the heart of the educational process” should be a goal of education systems, while Elder (2005) noted that “critical thinking is foundational to the effective teaching of any subject”. In addition, Atkinson and Ramanathan (1995, cited in Willingham, 2008) focused on the cultural aspects of critical thinking and suggested that “critical thinking is not a skill. There is not a set of critical thinking skills that can be acquired and deployed regardless of context”.

However, it may be defined and applied, critical thinking remains pivotal to educational outcomes and objectives in institutions across the globe. This is clear from the vision statements of a large number of high school boards that often claim to develop “inquiring” students, to tertiary educational institutions whose missions include developing high-level problem solving and critical thinking skills. Clearly, it is imperative that students possess such skills as reasoning, deduction, and evaluation before being absorbed into higher education institutions where these skills will increasingly be called upon. While American universities determine and evaluate such skills through tests including the SAT and ACT, similar standardized tests are not as commonly applied in many other countries around the world. As such,

various other tests, such as the Ennis-Weir Critical Thinking Essay Test, the Watson-Glaser Critical Thinking Test, and the California Critical Thinking Test, are used to determine the levels of reasoning and application of information by students in various disciplines.

### **The Use of Standardized Tests**

The use of standardized tests has itself been subject to much discussion in educational contexts. Rhodes (2011) and Possin (2008) suggested that portfolios were more indicative of student performance, while Benjamin (2014) stated that tests outside a specific content area or discipline, and therefore without context, could not be representative of student capacity for thinking. Liu, Frankel, and Crotts (2014) maintained that motivation was an important consideration in measuring critical thinking, as students who were taking a test whose results did not immediately impact them tended to not do as well as those who were taking a test for college admissions, as a contribution to their course mark, and so on. Hatcher (2011) suggested that scores were also dependent on the test that was taken by students and the way learners were trained to take it. Regardless of these concerns, throughout much of the world standardized tests in one form or the other are commonly given to students upon exit from school or on entry to tertiary institutions in order to determine student achievement outside their GPA scores (Benjamin, 2014; Hatcher, 2006; Niu, Behar-Horenstein, & Garvan, 2013).

The use of standardized tests in the Middle East and North Africa (MENA) region has been the subject of increasing research activity as it is only in the past 30 years that educational institutions have been established in many of the region's nations. Results from studies in Jordan (Bataineh & Zghoul, 2006), Iran (Azin & Tabrizi, 2016), Turkey (Sahin, 2016), the UAE (McLellan, 2009), and Oman (AlKhoudayr, 2015; Mehta & Al-Mahrooqi, 2015; Thakur & Al-Mahrooqi, 2015) have suggested that students in high schools and universities in the region need much more training in critical thinking as part of both the school curriculum and in their specialized college disciplines. However, these studies have used a variety of tests across different disciplines and educational levels, making it difficult to arrive at a more definitive assessment of the role of critical thinking in educational institutions in the MENA region. This study, therefore, enlarges the scope of existing research by including first year students enrolled in a public university in Oman in order to measure their critical thinking skills.

The Cornell Class-Reasoning Test Form X (Ennis et al., 1964) is part of a group of tests known as the Cornell Critical Thinking Tests, which also include the Cornell Conditional-Reasoning Test (Methodology). A number of researchers have used one or more of these tests to assess students' critical thinking skills in a variety of nations. For example, in the United States, Hughes (1992) reported only weak correlations of 0.15–0.17 between the Cornell Critical

Thinking Tests and student grades, although correlations with scholastic aptitude and intelligence measures were 0.50. Nolan and Brandon (1984) used a similar study to investigate the deductive reasoning skills of high school students in Jamaica and found that, while gender and academic achievement in the form GPA were not indicators of higher test scores, streams into which students entered did have an impact of their scores with science students scoring higher than most others.

In the MENA region, Bataineh and Zghoul's (2006) study using the Cornell Critical Thinking Test Level Z with master's students in Jordan indicated that learners "performed quite poorly", although the authors reported that older males and younger females performed better on the test. In the UAE, McLellan (2009) investigated 361 business students using the Cornell Conditional-Reasoning Test Form X, which, like the current instrument, was designed by Ennis et al., (1964) for school-level learners. Based on Nolan and Brandon's (1984) work, the author hypothesized that there would be no difference in performance based on gender, that older students would perform better than younger ones, that GPA would be a significant indicator of test scores, and that time spent in the business program would determine test performance. The author reported an overall mean score of 45.93 ( $SD = 11.92$ ) from 72 questions (63.8%) as compared to an overall mean score of 56.6 ( $SD = 14.00$ ) among 17-year-old students in the United States (78.6%).

McLellan (2009) also reported that while gender was not a significant indicator of critical thinking skills, older students performed better than younger ones. However, no relationship was found between GPA or the number of credits completed by students, contrary to the hypotheses put forward. McLellan concludes by suggesting that the Cornell Conditional-Reasoning Test Form X could be used for further analysis of critical thinking skills in the UAE. The current research attempts a similar approach in Oman though with the use of the Cornell Class-Reasoning Test Form X.

## METHODOLOGY

### Research Site and Sample

Sultan Qaboos University is the only fully publicly funded university in Oman. It was established as the first university in Oman in 1986 to enable citizens from around the sultanate to have access to tertiary education. Students are chosen for entry on the basis of grades received in the *Thanawiya Amma*, the high school diploma, as well as other diplomas offered by private schools (such as the IGCSE or the IB). After acceptance into the university, all non-exempt students are required to do foundation courses in English language, IT and mathematics, in order to prepare them for their specializations. Students who present an overall IELTS score of 5.0 or above are exempt from the English component and can enter their colleges directly.

### Research Question and Objectives

The present study investigated the following questions:

What is the level of Critical Thinking among college entrants in Oman?

What impact, if any, do the variables of gender, English foundation level, and age have on participants' Cornell Critical Thinking test results?

In order to test the critical thinking skills of these students and, therefore, gain a clearer idea of whether critical thinking skills are being adequately developed at the school level, an adapted version of the Cornell Critical Thinking Test Form X was given to 60 foundation students at the research site. To recruit participants, students in one Level 4 (intermediate) and one Level 6 (upper intermediate) English class were approached to sit the test during class time. After being reminded of the study's voluntary and anonymous nature, and that their choice whether to participate or not would not have any impact on their standing in the class or the university, a total of 60 students agreed to complete the test. 40.54% of participants were male and 59.46% female, with 54.05% studying at Level 4 and the remaining 45.95% in Level 6. All participants were either 18 or younger (83.78%) or 19 or older (16.22%), and came from governorates across the country, including Al-Dakhilia (21.62%), Al-Batinah South (18.92%), Muscat (13.51%), Al-Dhahira (13.51%), Al-Sharqiya North (13.51%), Al-Batinah North (8.11%), Al-Sharqiya South (5.41%), Musandam (2.70%), and Al-Buraimi

(2.70%). Participants were administered the test during their foundation English classes by their regular instructors, and did not receive any explicit test training beforehand.

### **Instrument**

The biggest challenge in choosing a critical thinking test for the current research context included the EFL status of participants and issues associated with conflating English ability with critical thinking skills for tests administered in English on the one hand, and issues associated with seeking to accurately translate a test from English to Arabic on the other. In order to address these concerns, an adapted English-language version of the Cornell Class-Reasoning Test Form X (Ennis et al., 1964) was employed as the test presents a series of critical thinking questions in simplified language that is even appropriate, according to the test creators, for primary-school children. Each question is introduced by a supposition followed by the question “Then would this be true?” accompanying a statement. For example, question 6 of the original Cornell Class-Reasoning Test Form X is worded and formatted in the following way:

6. Suppose you know that  
X is next to Y  
Then would this be true?  
Y is next to X.

Test takers must choose one of three answers to each question: Yes, No, or Maybe. Yes indicates that the final statement must be true, No that the statement cannot be true, and Maybe that it may or may not be true but that there was not enough information provided to be sure.

While the language, formatting, and layout of the test’s questions were considered to be largely appropriate for participants, some questions did, nonetheless, contain cultural references and/or Western names that were changed to make the test more culturally-appropriate. Examples include the change of names in one of the example questions from “Bill is next to Sam” to “Mazin is next to Ahmed”, and, “All the cars in the garage are Mr. Smith’s” to “All the cars near the house are Saif’s” (private garages are not as common in Oman as they are in many Western nations). These revisions were made during discussions with a panel of five instructors in the fields of education and linguistics at the research site which included members of the research team.

Revisions also took into account time constraints on data collection. As a result, the number of questions included in the test was reduced from the original 72 across 12 item groups to 36 questions across six items groups of six questions each (a course of action recommended by Ennis et al., 1964) in addition to the three example questions. These 36 questions cover all three content components of the test with the same frequency as the full-length test. These content components are concrete familiar, symbolic, and suggestive. Concrete familiar refers to questions about concrete articles and qualities that test-takers are most likely familiar with; however, these questions refer to a specific example featuring these items that test-takers are not familiar with—for example, “John’s car.” Symbolic refers to those cases where symbols, such as “X,”

“Y,” “A”, and so on, are used instead of references to particular objects, while suggestive relates to those questions where content is familiar to test-takers, but the truth or falsity of the content is not known. The items featured in the adapted test also cover five of the principles that were recommended in the manual for younger test takers, with principle 3 featured twice. These are:

Principle 1: All As are Bs.: At least some As are not Bs. All As are Bs. All Bs are Cs.: All As are Cs.

Principle 2: All As are Bs. All Bs are Cs. : All As are Cs.

Principle 3: All As are Bs.: All Bs are As.

Principle 3: All As are Bs. All Cs are Bs. : At least some Cs are As.

Principle 4: No As are Bs.: No Bs are As.

Principle 5: All As are Bs. No Cs are Bs. : At least some As are Cs.

Item groups of six questions each from the adapted version of the test employed here are as follows:

Item group 1 (principle 1): items 5, 32, 26, 13, 19, 36

Item group 2 (principle 2): items 4, 37, 24, 11, 16, 28

Item group 3 (principle 3): items 8, 21, 29, 34, 27, 38

Item group 4 (principle 3): items 6, 10, 23, 15, 31, 20

Item group 5 (principle 4): items 7, 14, 17, 30, 35, 25

Item group 6 (principle 5): items 9, 18, 39, 22, 12, 33

Ennis et al.'s (1964) test-retest reliability calculations of the test's content components with 329 school-level participants in grades 4, 6, 8, 10, and 12 reports an overall mean  $r$  value, calculated with the use of Fisher's  $z$ , of .83. In terms of individual content components, these values are: concrete familiar (0.79), symbolic (0.50), and suggestive (0.63). Test-retest  $r$  values for the six item groups employed in the current study are: Item group 1 (0.60), item group 2 (0.55), item group 3 (0.69), item group 4 (0.52), item group 5 (0.38), and item group 6 (0.52). (The adapted version of the test is available from the researchers upon request.)

Ennis et al. (1964) offer detailed results of school students on the class-reasoning test. The authors applied a formula of  $(R - W/2) + 27$  (where  $R$  = number of correct responses and  $W$  = number of incorrect responses) to calculate a total score from 99 for the 72 test items. Results for Ennis et al.'s student samples are: grade 4 – 48.5%; grade 6 – 57.5%; grade 8 – 58.8%; grade 10 – 74.2%; grade 12 – 73.1%. However, Ennis et al. (1964) state that the main concern of the test is not the overall scores themselves, but rather determining whether test-takers have mastered the principle that item groups are based on. In order to determine this, Ennis and Paulus (1965, cited in Johnson & Posner, 1971) state that mastery is demonstrated when a test-taker records correct answers for 5 or 6 items from an item group, while failure to master a principle occurs when 3 or fewer items have been answered correctly. Four correct answers for

an item group demonstrates neither mastery nor a failure to master the principle. For ease of interpretation in the current study, these numbers have been converted to percentages, with scores of around 83.3% or higher indicating mastery of the principle, scores of around 50.0% or lower indicating failure to master the principle, and score of around 66.7% indicating neither mastery nor failure to master the principle.

In the current study, the marking formula offered by Ennis et al. (1964) has not been applied as it is not applicable to the shortened version of the test. Instead, all participant answers to each item on the critical thinking test were marked as either correct or incorrect, with any missing responses also being marked incorrect. Items were then placed into the aforementioned six item groups. Correct and incorrect percentages for each item and each item group were then calculated. In addition, total correct and incorrect percentages were also calculated for the three test components of concrete familiar, symbolic, and suggestive. Three independent samples *t*-tests were then conducted to examine if statistically significant differences in overall test scores existed based on the variables of gender, English foundation level (Level 4 and Level 6), and age (18 or younger and 19 or older). A Bonferroni correction was made to decrease the possibility of type I error for these *t*-tests, with the resultant *p* value being set at  $p \leq 0.03$ .

## RESULTS

Item group 1 was concerned with principle 1: ‘All As are Bs.: At least some As are not Bs. All As are Bs. All Bs are Cs.: All As are Cs’ (see Table 1). The overall correct percentage for this item group of 61.7% suggests that participants had neither mastered nor failed to master the principle. This item group recorded amongst the highest correct percentages for individual questions, with almost all of these being above 60%. The one exception to this was for question 36, with only 48.6% of participants recording correct answers.

Table 1  
Item group 1

Question Number	Percent Correct	Percent Incorrect
5 (CF)	64.9	35.1
32 (CF)	70.3	29.7
26 (CF)	62.2	37.8
13 (CF)	62.2	37.8
19 (SY)	62.2	37.8
36 (SU)	48.6	51.4
Total	61.7	38.3

Note: CF = concrete familiar; SY = symbolic; SU = suggestive

Table 2 features item group 2, which was associated with principle 2: ‘All As are Bs. All Bs are Cs.: All As are Cs’. This item group received an overall correct percentage of 52.3%, thereby suggesting participant failure to master the principle. Although around 70.3% of participants offered the correct answer for question 24, the percentage of correct responses for the remaining 6 items were all under 57%, with this being as low as 35.1% for question 28.

*Table 2*  
Item group 2

Question Number	Percent Correct	Percent Incorrect
4 (CF)	56.8	43.2
37 (CF)	40.5	59.5
24 (CF)	70.3	29.7
11 (CF)	54.1	45.9
16 (SY)	56.8	43.2
28 (SU)	35.1	64.9
Total	52.3	47.7

*Table 3*  
Item group 3

Question Number	Percent Correct	Percent Incorrect
8 (CF)	21.6	78.4
21 (CF)	18.9	81.1
29 (CF)	18.9	81.1
34 (CF)	37.8	62.2
27 (SY)	27.0	73.0
38 (SU)	18.9	81.1
Total	23.8	76.2

Table 3 indicates that item group 3 received the lowest overall percentage of correct responses of 23.8%. This item group was associated with principle 3: 'All As are Bs. All Cs are Bs.: At least some Cs are As'. Participant responses indicated a failure to master the principle, with the highest percentage of correct responses being for question 34 (37.8%) and with the lowest correct percentage of 18.9% being shared by questions 21, 29, and 38.

Item group 4 was associated with the same principle as item group 3 as stated earlier (see Table 4). Participants here again demonstrated a failure to master the

principle, with an overall correct percentage of 37.8%. No questions here recorded overall correct percentages of above 50%, with the highest being for question 6 (48.6%).

Table 5 features correct percentages for participants for item group 5 that was associated with principle 4: 'No As are Bs.: No Bs are As'. Correct percentages here again suggest that students failed to master the principle, with the highest correct percent being for question 14 (59.5%). The overall correct percent for this item group was 51.4%.

*Table 4*  
Item group 4

Question Number	Percent Correct	Percent Incorrect
6 (CF)	48.6	51.4
10 (CF)	43.2	56.8
23 (CF)	37.8	62.2
15 (CF)	45.9	54.1
31 (SY)	21.6	78.4
20 (SU)	29.7	70.3
Total	37.8	62.2

*Table 5*  
Item group 5

Question Number	Percent Correct	Percent Incorrect
7 (CF)	48.6	51.4
14 (CF)	59.5	40.5
17 (CF)	54.1	45.9
30 (CF)	45.9	54.1
35 (SY)	51.4	48.6
25 (SU)	48.6	51.4
Total	51.4	48.6

Table 6  
Item group

Question Number	Percent Correct	Percent Incorrect
9 (CF)	59.5	40.5
18 (CF)	48.6	51.4
39 (CF)	24.3	75.7
22 (CF)	56.8	43.2
12 (SY)	54.1	45.9
33 (SU)	35.1	64.9
Total	46.4	53.6

Table 6 offers percentages correct for questions from item group 6, which was associated with principle 5: ‘All As are Bs. No Cs are Bs.: At least some As are Cs’. The overall correct percentage for this item group was 46.4%. Percentages of correct responses suggest that students failed to master the principle. The lowest level of correct percentage was for question 39 (24.3%) and the highest was for question 9 (59.5%).

The overall correct percentage for the entire test was 45.8%, with correct percentages for the three content components being: symbolic (45.5% across 6 questions), suggestive (36.0% across 6 questions), and concrete familiar (43.2% across 24 questions). Independent samples *t*-tests were conducted to examine if statistically significant differences in test scores existed between gender, English foundation level (Level 4 and 6), and age (18 or younger and 19 or older). As stated above, the accepted *p* value was set at 0.03.

The first *t*-test exploring the variable of gender revealed statistically significant

differences in scores across the critical thinking test ( $p = 0.002$ ) with female participants receiving higher scores than their male classmates. Females recorded an average score across the test of 18.36 (51.0%) and males recorded an average score of 13.53 (37.6%). Level 6 students also had significantly higher scores than students in Level 4 ( $p = .011$ ). Here, Level 6 students received overall test scores of 18.53 (51.5%) while Level 4 students recorded an average score across the test of 14.60 (40.6%). No statistically significant differences based on age were found.

## DISCUSSION

The integration of critical thinking instruction into the school curriculum is a priority of education systems around the world, including in Oman. Fisher (1998) argued that school curricula should be designed to place critical thinking skills at the heart of the educational process, with critical thinking skills such as induction, reasoning, inferencing, and deduction being integral to textbooks, teaching, assessment, and so on. Research from Oman suggests that Omani students generally do not have well-developed critical thinking skills (AlKhoudary, 2015; Mehta & Al-Mahrooqi, 2015; Thakur & Al-Mahrooqi, 2015), with similar findings being reported from other countries within the MENA region (Azin & Tabrizi, 2016; Bataineh & Zghoul, 2006; McLellan, 2009; Sahin, 2016).

Results from administering the Cornell Class-Reasoning Test Form X to 60 Omani students in this study reveal an overall

correct percentage of 45.8%. Ennis et al., (1964), as the developers of the test, reported overall correct percentages for an American school sample of 48.5% for grade 4, 57.5% for grade 6, 58.8% for grade 8, 74.2% for grade 10, and 73.1% for grade 12. Based on these figures, it appears as though the Omani university participants in the current study received similar results on the test to grade 4 students in the United States around 50 years previously. Of course, a number of concerns must be taken into account when making any claims about this figure, including the non-native English speaker status of the current participants and the fact that the test may not have been viewed as having any practical significance to respondents, which may be reflected in their low scores (Hatcher, 2011). Finally, it is also likely that participants' lack of explicit training on the test negatively affected their scores (Liu, Frankel, & Crotts, 2014).

While few researchers have applied the Cornell Class-Reasoning Test Form X to students in countries in the MENA region, McLellan's (2009) study of university students in the UAE used the Cornell Conditional-Reasoning Test Form X, which was also developed by Ennis et al. (1964). Although these tests take a different approach to assessing test-takers' critical thinking skills,

McLellan's research is referenced here as it one of the few that has adopted a Cornell Critical Thinking Test within a Arab Gulf nation, thereby offering some insight about critical thinking skill development within a

similar context. As stated earlier, the author reported an overall correct percentage of 63.8% on the Cornell Conditional-Reasoning Test Form X—around 20% higher than in the current study, again suggesting a limited development of critical thinking skills in the Omani school system.

Results across each of the test's six item groups reveal that participants failed to master four of the five principles tested. These were:

Principle 2: All As are Bs. All Bs are Cs.: All As are Cs. (52.3% correct)

Principle 3: All As are Bs.: All Bs are As. (23.8% correct)

Principle 3: All As are Bs. All Cs are Bs. : At least some Cs are As. (37.8% correct)

Principle 4: No As are Bs.: No Bs are As. (51.4% correct)

Principle 5: All As are Bs. No Cs are Bs. : At least some As are Cs. (46.4% correct)

The principle on which participants received the highest overall correct percent of 61.7% was for Principle 1: 'All As are Bs.: At least some As are not Bs. All As are Bs. All Bs are Cs.: All As are Cs.'; however, this level does not suggest mastery of the principle, but rather neither mastery nor failure to master it based on the guidelines offered by Ennis and Paulus (1965). It is also below the approximately 71.7% correct percentage recorded by Ennis et al.'s (1964) grade 4 participants. A similar pattern is observable when comparing overall correct percentages for the test's three content components of symbolic, suggestive, and concrete familiar. Omani respondents here

received overall correct percentages that were comparable with Ennis et al.'s grade 4 participants for concrete familiar (43.2% for the current study versus 53.1% in Ennis et al., 1964) and suggestive (36.0% versus 37.5%) questions, although were closer in results to Ennis et al.'s, grade 6 and grade 8 students for symbolic questions (45.5% versus 45.8% for grade 6 and 44.2% for grade 8).

Independent samples *t*-tests were conducted to explore the relationship between the variables of gender, level in the English foundation program, and age on the overall test score. Female participants scored around 13% higher on the Cornell Class-Reasoning Test Form X than their male colleagues, while Level 6 students scored around 11% higher than students in Level 4 of the English foundation program. Differences based on age were not found. The first of these findings adds to the rather complex picture in the literature, in which gender was not found to be related to test results on Cornell Class-Reasoning and Conditional-Reasoning Tests by Nolan and Brandon (1984) and McLellan (2009), but was found to be significant by Bataineh and Zghoul (2006) in Jordan. In addition, both Bataineh and Zghoul, and McLellan reported statistically significant differences on test results based on age, while the current study did not find any such differences.

There are a number of limitations, in addition to those discussed earlier, which must be taken into account when interpreting these results. First, the small sample size of 60 students means that the

external validity of these findings to the population under study—Omani school students—is necessarily limited. Similarly, assessing high school graduates who have gained entry into the most prestigious university in the country means that these respondents may be substantially different in critical thinking skills than those who did not enter the university, who went to different universities and colleges, or who pursued professional careers after graduating. As a result, future research should seek to assess students' critical thinking skills while they are still in high school, rather than waiting until they have been selected for higher level study. In addition, the modified nature of the test may also have reduced its reliability and validity, even if these modifications were done in line with Ennis et al.'s (1964) guidelines. Finally, the status of the participants as non-native speakers of English, and the relative lack of studies that offer regional benchmarks for the Arab Gulf nations, may also have impacted the results and their interpretation here.

## CONCLUSION

This study examined the critical thinking skills of first year university students in Oman in order to determine whether these skills are being effectively taught at the school level. In order to achieve this, the Cornell Class-Reasoning Test Form X was administered to 60 students enrolled in the English language component of a foundation program in Oman's only public university. Results revealed that participants had failed to master four of the five principles tested,

and that they also scored at levels that were mostly comparable to grades 4 to 6 school learners in the United States as reported by the test developers (Ennis et al., 1964). Although the Cornell Class-Reasoning Test Form X has not been widely used with similar populations in the Arab Gulf region previously, participants in this study received lower scores than a similar group of students at an Arab Gulf university who sat the Cornell Class-Conditioning Test Form X (McLellan, 2009), which was also developed by Ennis et al. (1964). While statistically significant differences were found based on the variables of gender and English foundation program level, Omani students nonetheless appear to generally struggle with critical thinking skills, at least as measured by the current test. These findings suggest that the way critical thinking is integrated into the curriculum in Omani schools may need to be reviewed, with particular attention paid to such areas as the curriculum itself, teaching practices, textbooks, assessment, and so on. Such a course of action may be found by future research to be necessary in order to help prepare school learners in Oman for their future academic and professional careers.

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## **Exploring the Relationship between Motivation and Science Achievement of Secondary Students**

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### **ABSTRACT**

Motivation plays an important role in students' learning and academic performance. It is believed that intrinsic and extrinsic motivation contributes in the learning process in different ways. This study examined the effects of intrinsic and extrinsic motivation on student science achievement using the Trends in Mathematics and Science Study (TIMSS) 2011 data. Furthermore, the study explored how intrinsic and extrinsic types of motivation function across different cultures. The sample consisted of eighth grade students from the United States, England, Malaysia, and Singapore. Students from the Western culture value extrinsic motivation higher than intrinsic motivation in science learning. The findings also showed that students with high intrinsic motivation perform better than students with low intrinsic motivation across the four countries. Positive relationship between motivation and science achievement supported motivation theory in which higher motivation led to higher achievement scores. Students with intrinsic motivation obtain higher score in science compared to extrinsically motivated students. This study also showed cultural differences affect students' types of motivation. Furthermore, this study could be practically valuable in providing insight on understanding the motivation levels in enhancing students' science achievement.

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## INTRODUCTION

Motivation can be defined as an internal process leading a human to behave in a particular way. It is the set of requirements, forces, and desires that can activate, stimulate, guide, and maintain behavior over time (Brophy, 2004). Various definitions are used to describe the concept of motivation in the literature. For instance, Ainley (2004) defined motivation as energy, direction as well as the reasons for behaviors. Motivation is a complex term in explaining human effort and endeavor in different activities and the factors that led to human behavior (Cavas, 2011; Sevinc, Ozmen, & Yigit, 2011; Watters & Ginns, 2000). Ryan and Deci (2000) describe motivation as the move to do something or aspiration to act. Brophy (2004) related motivation with goal-oriented behavior where motivation was used to explain beginning, direction, force, and insistence of goal-oriented behavior. In other words, motivation gets an individual going, keeps an individual going, and determines the direction an individual is targeting (Slavin, 2000). In general, motivation is related to various psychological concepts such as curiosity and interest, learning and performance, goals and goal orientation (Sprinthall, Sprinthall, & Oja 1998).

Furthermore, motivation is a vital educational variable essential to the learning process because it activates, stimulates, and maintains learning behavior (Palmer, 2005). From the psychology viewpoint, motivation is needed for behavioral change and learning is part of behavioral change (Brunner et al., 2010). In addition, Barlia

and Beeth (1999) described motivation as being involved in the process of learning behavior including learning, unlearning, and relearning by stimulating new skills and behavior as well as performance of learned skills and behaviors. Driscoll (2000) suggested that educators should analyze who the learners were and incorporated motivational concerns into instruction.

Meanwhile, motivation in learning science is important so that students will take the initiative to understand the subject. Students may not feel bored learning science and will truly enjoy the beauty of the subject. To increase students' knowledge in science, educators have utilized many pedagogical strategies to improve subject delivery. Studies have shown that students with high interest and motivation performed better in the science subjects. Student achievement in science-related subjects improved when high motivation in learning is achieved.

### **Intrinsic Versus Extrinsic Motivations**

According to Ryan and Deci (2000), people have different level of motivation (the amount of motivation) as well as different orientations of motivation (the types of motivation). The type of motivation is determined by the underlying attitude, reasons, motives and goals that lead the action or the move. Intrinsic and extrinsic types of motivation are equally essential and have been widely deliberated in the literature based on self-determination theory. These two types of motivation play a crucial role in education practice and human development.

Intrinsic motivation refers to doing something for itself, pleasure and its inherent satisfaction instead of for separable outcome or consequence (Cokley, Bernard, Cunningham, & Motoike, 2001). Intrinsic motivation also reflects internal control by doing an activity because it is interesting, fun or challenging in nature based on the curiosity motive. Conversely, extrinsic motivation refers to doing something because it leads to separable outcome. It also reflects external control by focusing on the desire to receive a reward or to avoid punishment (Watters & Ginns, 2000). Furthermore, self-determination theory explains that motivation takes place at the time where the expected result does not occur with the individual's behavior (Cokley et al., 2001). However, motivation withdraws when individuals perceive that the output or result is out of their control.

The transition from the perspective of behavioral to cognitive brought a reintegration of motivation with learning (Driscoll, 2000). There is no single, widely accepted theory to explain all of human motivation in learning. In fact, intrinsic motivation has emerged as central focus in the education field for reflecting the natural human tendency to gain knowledge and skills owing to curiosity and interest (Ryan & Deci, 2000). Because of high-quality learning and creativity resulting from intrinsic motivation, it is important to discover factors that stimulate intrinsic motivation. On the contrary, extrinsic motivation is related to external reward or separable outcome as the stimulation

for learning activity. Extrinsic motivation is categorized as an impoverished yet powerful form of motivation (deCharms, 1968). Educators cannot depend on intrinsic motivation to foster student learning behavior all the time. This is because some learning tasks may not be fun or enjoyable for particular students; however, students may be able to perform if they are extrinsically motivated. Hence, educators need to understand and learn how to apply extrinsic motivation as an essential teaching strategy for effective learning (Ryan & Deci, 2000). Notably, students could be motivated by extrinsic learning goals or performance goals. Students with performance goals will have the desire to acquire additional knowledge or master new skills although they are externally being pushed into action initially (Ormrod, 2000).

### **Motivation in Science Learning and Science Achievement**

In the constructivist learning theory, learners construct new knowledge based on their experience and the interaction with the environment. In this case, the students are active knowledge constructors. When students discover meaningful learning tasks, they will link this new knowledge with their existing experience by engaging actively in the learning tasks. If the learning task is less meaningful, students usually use lower order learning strategies such as memorization to understand the material (Pintrich & Schunk, 1996). Von Glasersfeld (1998) highlighted that motivation was influenced by students' learning goals. Students' ability

to construct their scientific knowledge could be attributed to their learning strategies and learning values. Motivation would be the catalyst for goal-directed science activities to continue (Pintrich & Schunk, 1996).

One of the goals of science education in schools is to improve students' scientific literacy (National Research Council [NRC], 1996). Students are required to master the essential science concepts, to relate the application of science knowledge in their daily lives, understand the nature and beauty of science, and most importantly continue pursuing science related subjects in higher education. Research in science classrooms must not only focus on learning, but instead also investigate what motivates students in learning the subject. Thus, the affective domain should also be given equal emphasis as compared to the cognition domain (Duit & Treagust, 1998; Lee & Brophy, 1996; Pintrich, Marx, & Boyle, 1993). In understanding the motivation to learn science, studies have explored the reasons students learn science, how hard they tried and the beliefs, emotions and feelings endured during this whole process (Glynn, Taasobshirazi, & Brickman, 2009). Past research has shown motivation played a crucial role in science learning: the conceptual change processes, critical thinking, learning strategies, and science achievement (Kuyper, van der Werf, & Lubbers, 2000; Lee & Brophy 1996). In addition, motivation in learning science helps students build their own conceptual understanding of the subject (Cavas, 2011).

A few studies has been done on identifying factors in motivation and science learning and science achievement (Barlia & Beeth, 1999; Lee & Brophy, 1996). Previous researches have shown that students' low motivation is associated with low self-esteem, lack of responsibility, and strained family relationship (Erb, 1996). On the other hand, highly motivated students generally portray high intrinsic motivation attributes such as enjoying the lesson, strong personal interest, high commitment in the class, and strong belief in effort lead to success (Ng, Areepattamannil, Treagust, & Chandrasegaran, 2012).

Studies have established factors influencing motivation in learning science from the students' perspective such as general goals and affective components, achieving scientific understanding, interest in the subject and the results obtained in class, progress in scientific understanding and interpretation of what constitutes the task (Barlia & Beeth, 1999; Hynd, Holschuh, & Nist, 2000; Lee, 1989; Lee & Brophy, 1996; Nolen & Haladyna, 1989). According to Pintrich et al. (1993), self-efficacy, science learning values and students' learning goals are essential in the motivation of learning science. The students will get involved in the learning science if they believe in their ability and think that it is meaningful to take part in the science subject where their learning goal is to gain competence. Factors such as individual's goals toward the tasks, task value, and the learning environment influence students' learning motivation (Brophy, 2004; Pintrich & Schunk, 1996).

Combining the constructivist learning and motivation theories, Tuan, Chin, and Sheh (2005) found six important factors that were self-efficacy, active learning strategies, science learning value, performance goal, achievement goal, and learning environment stimulation for science learning motivation. Self-efficacy, active learning strategies, and science learning value are categorized as intrinsic motivation because these factors focus on the students' internal factor including how they perceive their ability, their value as well as their learning strategies in science. Meanwhile, performance goal, achievement goal, and learning environment stimulation are considered as extrinsic motivation. Performance goal and the achievement goal lead the students' learning motivation with the students' aims to impress their parents or teachers and to perform better than their peers. The learning environment comprises external learning factors such as teachers' teaching strategies, class activities, and the classroom environment that might enhance the student motivation in science learning (Tuan et al., 2005).

Students' motivation level in science learning has a significant effect on their academic achievement. Research showed that a positive relationship exists between academic achievement and motivation level. For instance, as the motivation level increases the higher the academic achievement scores (Bolat, 2007; Patrick, Kpangban, & Chibueze, 2007; Shih & Gamon, 2001). Altun (2009) discovered that

students with low motivation have higher chances of failure in the subject. Students with higher motivation levels performed better in science compared to those with lower motivation levels. Similarly, Shih, and Gamon (2001), and Singh, Granville, and Dike (2002) had mentioned that students' motivation levels affect their academic performance. In conclusion, most of the studies show that academic achievement is affected by motivation level.

### **Purpose of Study**

It is a well-known belief that students with higher motivation in learning would be more likely to do well in assessments. However, few studies have investigated the effects of motivation and the relationship with academic achievement for Asian students and Western students in particular for science subjects (Lay, Ng, & Chong, 2015; Palmer, 2007). Hence this article would like to contribute to the literature on how the types of motivation affect science achievement.

The purpose of this study is threefold. First, we compare the intrinsic motivation and extrinsic motivation scores of Western and Asian students in learning science. Second, the study investigates whether there is any difference in students' levels of motivation and their science achievement. Third and finally, the study explores the relationship between the motivation levels of students' and their science performance. This study will attempt to answer the following research questions:

1. What is the intrinsic and extrinsic motivation of Western and Asian students in learning science?
2. Is there any significant difference in the levels of motivation and science achievement between Western and Asian students?
3. Is there any significant relationship between the types of motivation and science achievement between Western and Asian students?

As this study intends to investigate how extrinsic and intrinsic motivation affect science achievement, it would be interesting to know whether students with different combinations of these two motivation differ in science performance. Given the interest in cultural differences, we are also interested to assess any culture-specific effects, namely Western (U.S. and England) versus Asian (Malaysia and Singapore) countries. Generally, the Western education system emphasizes individuality and diversity in learning. It values creativity over conformity, and eschews rote memorization and drill learning. Students in the Western education system are encouraged to have fun while learning. On the other hand, the Asian education system emphasizes exercises and testing. It is also important to avoid criticism, ridicule, and rejection and to win approval and acceptance, which is more reserved and conservative (Ma, 2012; Zappia, 2014). This means that students in Asian classrooms will speak less because they tend to fear voicing views that the teacher or fellow students will

find unacceptable. The Western education system generally encourages active student participation in the classroom by sharing ideas and some believe that this will lead to better academic achievement. But contrary to this common belief, according to the latest international student assessment report such as PISA and TIMSS, East Asian countries are the top achievers in the international assessments.

In this study, the United States and England are selected to represent the Western education system while Malaysia and Singapore were chosen to represent the Asian education system. Malaysia and Singapore were selected to represent the Asian students because both countries have similarities in terms of educational systems, cultural background, ethnicity, multilinguals, and geographical location (OECD, 2014).

Singaporean students have maintained their high mathematics and science achievement scores in international assessments such as TIMSS and this has always been a topic of interest for researchers. The United States is used as the benchmark in this study because of its science and technology advancement while England was chosen due to its strong influence on the education system in Malaysia and Singapore; therefore it is used as a comparison in this study. Hence, it might be interesting to see if there is any difference in terms of motivating factors and levels in science achievement among the Western countries and Asian countries.

## METHODS

This study utilized the correlation research design. The sampling technique of this study follows the TIMSS 2011 sample design. In the TIMSS study, the two-stage random sample design was employed in two stages, with a sample of schools drawn at the first stage and selection of one or more intact classes of students in the second stage (Joncas & Foy, 2012). The population of this study consists of Grade 8 students from the United States, England, Singapore, and Malaysia.

### Samples

The samples of this study involved eighth grade students only from the United States, England, Malaysia, and Singapore who participated in TIMSS 2011. This international assessment is the fifth series of comparative studies to assess student achievement in mathematics and science at the fourth and eighth grades. The total number of Grade 8 (13 -14 years) participants was 9,713 from the United States, 3,842 from England, 5,409 from Malaysia, and 5,804 from Singapore.

### Measures

Twenty-six items were selected from three main questions selected in this motivation study are from the questionnaires provided by TIMSS 2011. Each item is presented as a Likert-type item scored using a 4-point response ranging from "1" (*Agree a lot*) to "4" (*Disagree a lot*). The scale was developed to measure individuals' perceptions of motivation regardless of

their actual achievement in the science subject. The selected questions are grouped into two main factors: intrinsic motivation and extrinsic motivation as summarized in Table 1. There are 13 items each in the self-constructed intrinsic and extrinsic motivation factors. All positive Likert-type items are converted into ascending order score with "1" (*Disagree a lot*) to "4" (*Agree a lot*). Then each of the items is summed under the motivation categories, resulting in the total values of 52 and 56 points for each category. All the analyses conducted in the following sections were performed using the weighted data (TOTWGT, total student weight --sums to the national population). TOTWGT is used to represent the actual national population size to compute all the significance tests to mitigate the sample bias issue. The Likert-type items listed in Table 1 are used to test for the relationship between science achievement and intrinsic/extrinsic motivation factors. The Cronbach's alphas are used in assessing the consistency and reliability of the Likert-type items in each motivation category. In general, the alpha values are .875 and .896 for intrinsic and extrinsic motivations, suggesting adequate reliability of the Likert-type items in each category. These two forms of motivation were positively correlated with the Pearson coefficient of 0.8 at 1% significance level.

To address the construct validity of the TIMSS questionnaire, a factor analysis was conducted on all the items from the questionnaire. Using the principal component analysis and varimax rotation produced six factors with Eigen values

greater than one. Items with loadings greater than .5 were retained in the six factors. The factor pattern showed that (a) Factor 1 was measured by five items and was called self-efficacy; (b) Factor 2 was measured by three items and was named active learning strategies; (c) Factor 3 was represented by five items was named science learning; (d)

Table 1  
Selected variable description

Motivation factors	Questionnaires	Variable names	
Intrinsic motivation	1. Self-efficacy	1. I like science	BSBS17F
		2. Science is not one of my strengths	BSBS19C
		3. Science makes me confused and nervous	BSBS19E
		4. Science is harder for me than any other subject	BSBS19I
		5. I would like a job that involves using science	BSBS19N
	2. Active learning strategies	1. I read about science in my spare time.	BSBS17C
		2. I learn things quickly in science	BSBS19D
		3. I need science to learn other school subjects	BSBS19K
	3. Science learning value	1. I enjoy learning science.	BSBS17A
		2. <i>I wish I did not have to study science.</i>	<i>BSBS17B</i>
		3. <i>Science is boring</i>	<i>BSBS17D</i>
		4. I learn many interesting things in science	BSBS17E
		5. I think learning science will help me in my daily life	BSBS19J
	1. Performance goal	1. I know what my teacher expects me to do	BSBS18A
		2. <i>Science is more difficult for me than for many of my classmates</i>	<i>BSBS19B</i>
3. I am good at working out difficult science problems		BSBS19F	
2. Achievement goal	1. It is important to do well in science	BSBS17G	
	2. I usually do well in science	BSBS19A	
	3. I need to do well in science to get into the <university> of my choice	BSBS19L	
	4. I need to do well in science to get the job I want	BSBS19M	
Extrinsic motivation	3. Learning environment stimulation	1. <i>I think of things not related to the lesson</i>	<i>BSBS18B</i>
		2. My teacher is easy to understand	BSBS18C
		3. I am interested in what my teacher says	BSBS18D
		4. My teacher gives me interesting things to do	BSBS18E
		5. My teacher thinks I can do well in science <programs/classes/lessons> with difficult materials	BSBS19G
		6. My teacher tells me I am good at science	BSBS19H

*Note:* The variable names are the coded variable from the TIMSS 2011 international database. The sentence in *italics* represents a negative statement.

Factor 4 was represented by three items and was labeled performance goal; (e) Factor 5 was measured by four items and named achievement goal; and (f) Factor 6 was represented by six items called learning environment stimulation. Self-efficacy, active learning strategies, and science learning value were grouped under intrinsic motivation whereas performance goal, achievement goal, and learning environment stimulation were grouped under extrinsic motivation based on the construct validation study done by Tuan et al. (2005).

## RESULTS

To answer the first research question on “What are the intrinsic and extrinsic motivation of Western and Asian students in learning science?”, descriptive statistics were utilized. Table 2 presented the mean and standard deviation of the students’ intrinsic and extrinsic motivation scores. The intrinsic motivation mean scores were

higher for students from the Malaysia ( $M = 38.64$ ) and Singapore ( $M = 38.63$ ) when compared to United States ( $M = 36.64$ ) and England ( $M = 37.93$ ) students. However, the extrinsic motivation mean scores were higher for students in Western countries ( $M = 39.46$ ) when compared to Malaysian ( $M = 37.26$ ) and Singaporean ( $M = 37.94$ ) students. When analyzing the standard deviation scores for intrinsic motivation and extrinsic motivation, Western students obtained a higher value than the Asian students in learning science. This informs us that the spread of the motivation scores in Western countries is slightly bigger than for their Asian counterparts. In other words, the motivation scores in learning science for Western students are more inconsistent than their Asian counterparts.

Table 3 compares the science achievement of students according to their level of motivation scores. Students’ motivation scores were divided into three

Table 2  
*Means and standard deviations of intrinsic and extrinsic motivation scores*

Country	Sample Size	Mean	SD
Panel A: Intrinsic Motivation			
U.S.	9,713	36.64	8.72
England	3,455	37.93	8.43
Malaysia	5,409	38.64	7.18
Singapore	5,804	38.63	7.91
Panel B: Extrinsic Motivation			
U.S.	9,713	39.46	7.83
England	3,455	39.46	7.18
Malaysia	5,409	37.26	6.77
Singapore	5,804	37.94	7.08

*Note:* Maximum scores are 52 for both intrinsic and extrinsic motivation scores.

categories of low, medium, and high. The scores were divided into three equally distributed groups, in which, the lowest 33% belongs to low, the highest 33% belongs to the high category, and the rest belongs to medium group. The results showed that all students from the four countries with high intrinsic motivation scores also had the highest mean in science achievement. Similarly, students with high extrinsic motivation scores also were the best performers in science achievement. Interestingly, science achievements of students with high intrinsic motivation scores are better than those with high extrinsic motivation between each of the four countries. However, students with low extrinsic motivation scored higher in science achievement than students with low intrinsic motivation between all the countries except the United States. Science

achievement scores for students with low intrinsic motivation in Singapore were the highest, followed by England, the United States, and Malaysia in the same category. The science achievement scores for students with low extrinsic motivation showed a similar result. When comparing students with medium motivation scores, the results showed that students with intrinsic motivation performed better than students with extrinsic motivation in the United States and England. However, students with medium extrinsic motivation performed better than students with medium intrinsic motivation in Malaysia. In Singapore, there is no noticeable difference for student in this medium motivation category. The reported Cohen's effect size is large for the science achievement in the low and high motivation categories. However, the effect size is much lower for extrinsic motivation compared

Table 3  
Means and standard deviations of science achievement grades for intrinsic and extrinsic motivation

Country	Motivation Scores						Effect Size d
	Low		Medium		High		
	<i>n</i>	Mean (SD)	<i>n</i>	Mean (SD)	<i>n</i>	Mean (SD)	
Panel A: Intrinsic Motivation							
U.S.	4,218	503.42 (2.78)	2,373	530.37 (2.96)	3,123	559.79 (2.90)	0.72
England	1,309	508.67 (5.04)	889	540.18 (5.37)	1,257	566.76 (5.15)	0.79
Malaysia	1,721	387.33 (7.70)	1,662	424.13 (5.80)	2,026	465.83 (6.02)	0.81
Singapore	1,972	554.55 (4.35)	1,611	591.11 (4.47)	2,221	622.62 (4.86)	0.74
Panel B: Extrinsic Motivation							
U.S.	2105	497.69 (3.62)	2,888	516.16 (2.62)	4,720	549.22 (2.78)	0.60
England	685	510.93 (5.94)	1,228	528.50 (4.84)	1,645	556.04 (5.56)	0.57
Malaysia	1,426	395.42 (8.69)	2,227	431.81 (6.02)	1,822	449.00 (6.30)	0.53
Singapore	1,460	557.61 (4.76)	2,293	591.17 (4.25)	2,051	614.03 (5.33)	0.58

Note: The effect size was calculated based on the mean difference between the High and Low science achievement grades and the means are all significantly difference at 1% level.

to intrinsic motivation. This indirectly indicates that there is a significant difference in science achievement scores between the low and high motivation categories. Besides, the results also show the effect size in science achievement is higher for intrinsic motivation than extrinsic motivation for all the four countries. The effect size between 0.2 and 0.5 is categorized as small; for effect size between 0.5 and 0.8 is categorized as medium and for effect size greater than or equal to 0.8 is categorized as large (Nunally & Bernstein, 1994). In other words, there is a significant difference in science achievement based on the motivation categories.

Table 4 presents the correlation between science achievement score and type of motivation. The correlation coefficients were tested using Pearson correlation test and all the estimated coefficients are significant at 1% level. Malaysian students have the highest significant correlation score of 0.35 between intrinsic motivation and science achievement, followed by Singapore, the United States, and England. The correlation between science achievement and extrinsic motivation among the United States students had the highest value of 0.29, followed by the other three countries. All the four countries obtained a higher correlation between intrinsic motivation and science achievement than the correlation between extrinsic motivation and science achievement. Interestingly, there are significant differences between the correlation for intrinsic and extrinsic motivation with science achievement with Malaysian students having the largest

difference among the four countries. When extrinsic and intrinsic motivation is combined as a single motivation factor, the correlation with science achievement showed that Malaysian students obtained the highest correlation of 0.32, followed by England with 0.30 and both the United States and Singapore with 0.29.

Table 4  
*Correlation coefficients between science achievement scores and motivation scores*

Country	Science Achievement vs. Motivation factors		
	Intrinsic	Extrinsic	Intrinsic + Extrinsic
U.S.	0.32	0.29	0.29
U.K.	0.31	0.24	0.30
Malaysia	0.35	0.24	0.32
Singapore	0.32	0.24	0.29

*Note:* All the correlation coefficients are tested using Pearson correlation test. All the estimated coefficients are significant at 1% level.

## DISCUSSION

This present investigation based on cross-country analyses focuses on motivation factors in influencing science achievement among eighth grade students. The motivation factors (intrinsic and extrinsic) were evaluated using the selected questions from the TIMSS 2011 survey.

As shown in Table 2, students from the Western culture obtained a higher mean score in extrinsic motivation than their Asian students. This suggested that students in Western countries value extrinsic motivation higher than intrinsic motivation when learning science in consistent with the view of educational psychologists. Teachers

play an important role in students' learning in the Western culture by encouraging and making learning fun. However, the results showed that students in Asian countries value intrinsic motivation higher than extrinsic motivation in learning science. This suggests that students from the Asian culture have a positive attitude in learning science and value the importance of science that is similar to the findings by Zhu and Leung's (2011).

The science achievement results of Singaporean students' were better than Malaysian students even though both countries had quite similar motivation scores. This may be due to the coherent and rigorous science curriculum in Singapore and the selection of the top performing students to be science teachers. Another reason for the differences in results might be due to the fact that almost 41% of science teachers in Malaysia do not have an undergraduate degree, which may have an effect in the subject delivery in the classrooms (Academy of Science Malaysia [ASM], 2015).

The findings in Table 3 describe the low, medium, and high motivation score of students and their science achievement score. One of the interesting findings is that students with high intrinsic motivation perform better than students with high extrinsic motivation across the four countries. This would indicate that self-efficacy is an important factor for students who perform well in science achievement across the Western and Asian cultures.

The results showed that students with low extrinsic motivation have higher science achievement scores than students with low intrinsic motivation indicate that other external factors such as encouragement from teachers and parents play a more important role that students' own self efficacy in science achievement. The findings of large effect size of the low and high motivation categories further support how motivation factors are related to science achievement (Ng et al., 2012).

Despite the weak correlation between motivation factors and science achievement, the correlation between intrinsic motivation and achievement was substantially higher than the extrinsic motivation. Malaysian students' science achievement scores also experience wider spread (with higher standard deviation) across all the categories. On the other hand, the United States has the smallest spread (ranging from 2.80-3.58). This implies that U.S. students are more consistent in their achievement if they have about the same motivation scores, while Malaysian students' science achievements are not that consistent even though they fall under the same level of motivation. The correlation between different motivation scores (intrinsic, extrinsic, and combination of intrinsic and extrinsic) and achievement scores are not too different among the four countries ranging from 0.29-0.32. The finding of weak correlation indicates that there might be other contributing factors in science achievement besides motivation in learning.

The present results show although Singaporean students' achievement scores are higher than that for the other countries, their intrinsic and extrinsic motivation factors are not much different from the rest. Surprisingly, Singaporean and Malaysian students' motivations scores are quite similar in both motivation categories. The most interesting findings are the intrinsic motivation scores are higher in the Asian countries than the Western countries and the opposite is observed for extrinsic motivation. In congruence with Zhu and Leung's (2011) cultural difference theory in education, the results presented here emphasize intrinsic motivation factor is higher than external motivation among the Asian students and vice versa for the Westerners.

### **Implications**

The findings of this study suggest several important implications for educators. Students with high intrinsic motivation also perform well in their science achievement. This study also implies that the educators and parents play a prominent role in exposing students to the benefits of science not only to increase their high self-efficacy toward science but to also produce high-quality learning and creativity. On the other hand, students with low extrinsic motivation have a higher science achievement score than students with low intrinsic motivation. This reflects the significant impact of extrinsic motivation in student performance in science. Educators should not just depend on students' intrinsic motivation in learning

science but more efforts are needed in stimulating students' motivation and interest in science learning. Sometimes certain learning tasks are uninteresting but with extrinsic motivation students would take the effort to learn science. Educators should learn how to use extrinsic motivation as a pedagogical tool for effective teaching in science, such as student-centered learning, interactive learning session, and science workshops (Brophy, 2004; Pintrich & Schunk, 1996). This would help students to perform better in science examinations. Students with performance goals from extrinsic motivation would have a stimulus to learn new science skills and be hungry for knowledge.

### **CONCLUSION**

This study investigates student intrinsic and extrinsic motivation factors pertaining to science achievement using the TIMSS 2011 data on eighth grade level students in four selected countries, such as the United States and England in representing the Western educational system and Malaysia and Singapore in representing the Asian educational system. In conclusion, the findings of the present study lend empirical support for the relations of motivation and science achievement scores among the eighth grade students. The cross-country analyses support the existing motivation theory in academic achievement, in which higher motivation leads to higher achievement scores. This phenomenon generally holds true for all the countries under the study of different cultural and

social background. Last but not least, the underlying cultural differences in learning raise important issues on student motivation.

To sum up, the present analysis made three important points. First, students from Asian countries value intrinsic motivation highly while the Western students rate extrinsic motivation highly in learning science. However, the spread of the motivation scores in Western countries is slightly bigger than for their Asian counterparts. Second, self-motivation (intrinsic) is more dominant in achieving higher science scores when compared to external motivation (extrinsic) among the Western and Asian students. In addition, there is a significant difference in science achievement based on the motivation categories for all students. Third, there is a stronger correlation between intrinsic motivation and science achievement than extrinsic motivation and science achievement across the four countries.

Future research based on this study with more comprehensive investigation can be done by including the social economic factors and motivation factors in influencing academic achievement. This study can also be extended to examine the intrinsic and extrinsic motivational orientations in other subjects from the Western and Asian educational system perspective. It would also be interesting to understand the stimulating factors of intrinsic motivation among highly motivated students in schools (Ryan & Deci, 2000). Researchers should also consider developing a structural equation modeling of the motivation factors

and science achievement. By enhancing both intrinsic and extrinsic motivation, this maximizes the interest of learning science among the students in achieving higher scores and also generates fun in learning.

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## **Development of Learning Leadership Indicators for Thai Secondary School Principals**

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### **ABSTRACT**

This research aimed to examine the key factors and indicators of learning leadership for secondary school principals in the northeast of Thailand. The researchers conceptualized learning leadership indicators to form a framework by analyzing documents and related previous research, coupled with interviewing five academic experts. This is followed by a survey of 780 school principals with the intention of testing the goodness-of-fit of the identified learning leadership indicators with the empirical data. Finally, the researchers analyzed the approach and guidelines for developing learning leadership skills. This study utilized a mixed mode method. The results disclosed that a total of 60 indicators were identified from nine key factors. The structural relationship model of learning leadership indicators was found to be consistent with the empirical data, with  $\chi^2=344.241$ ,  $df = 307$ ,  $\chi^2/df = 1.1213$ , CFI = 0.996, TLI = 0.995, RMSEA = 0.019, and SRMR = 0.019. The guidelines of the nine key factors with high factor loading indicators, include the criteria for enhancing the aims and objectives, the strategies involved by self-directed learning, workshops, training, benchmarking, and action research. The developmental procedure encompasses the identification of need assessment, strategic planning formulation, technique selection, implementation, and monitoring and assessment. The findings contributed significantly to the knowledge with regards to proposing guidelines and approaches that will guide secondary school principals in their quest to become efficient learning leaders.

*Keywords:* Guidelines for the development of learning leadership, key factors, learning leadership indicators, secondary school principals

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## INTRODUCTION

Effective leaders never cease to learn about any aspect of educational leadership. This is because school principals are conscious of the need to develop themselves and take every opportunity to apply this approach by enhancing the means and arrangements that allows them to promote single and shared learning to the extent of their administrative power (Somprach, Tang, & Popoonsak, 2016). Therefore, successful leadership involves taking every opportunity to learn. According to Kouzes and Posner (2016), learning leadership is defined as a strong factor of ordinance outcomes at the micro- and macro-level of school operation. Somprach et al. (2016) further emphasized that learning leadership can enhance school principals' ability to take into account their distinct leadership powers and weaknesses, so that they are able to introduce new methods of dealing with impending challenges and overwhelming problems. This is further supported by Kohlreiser (2013), as learning leadership can improve interactions between school principals and their subordinates by constructing solid links. In fact, school principals can handle conflict through successful learning leadership operations, and train their subordinates to enhance their abilities. As a result, learning leadership furnishes school principals with the ability to introduce long-lasting accomplishments, and offers school principals a "play to win" mentality to inspire novel approaches in staff performance.

According to Runcharoen (2014), school principals not only needs to be competence, knowledgeable, and creative when it comes to introducing learning innovations and extending the learning potential of school staff, but must also possess good occupational ethics. Moreover, Somprach (2012) indicated that learning leadership was a vital factor in job reform for organizational effectiveness, and was an important mechanism affecting processes, organizational structure, patterns, social interactions, beliefs, values, attitudes, and working behaviors. Since leadership is a powerful force when it comes to determining school effectiveness and student learning, as indicated by Louis and Leithwood (2010), this prevalent acceptance should be tested through the use of empirical data (Somprach & Tang, 2016).

The Office of Education Council (OEC) of the Ministry of Education (2011), which is the key body dealing with organizational policy advancement in terms of planning and setting education standards, has summarized three key features of education reform with regards to the second decade of this century (2009–2028). The three key features are (i) improving the quality and standard of education and learning of the Thai people; (ii) increasing life-long educational chances thoroughly and effectively, and (iii) encouraging participation from every sector, targeting on systematic reform and learning in Thailand. The Ministry of Education (2015) is currently fostering the transformation of the education system with a tactic based on enriching moral

and ethical values, in conjunction with a central program for cultivating excellence in education. It has proposed strategies to reform education in six main areas: (i) curriculum and learning procedures; (ii) teacher production and improvement; (iii) evaluation, quality assurance, and educational standard development; (iv) production and development of the workforce and research that fulfills the need for developing the country; (v) ICT for education; and (vi) management system.

### **Statement of the Problem**

The current educational administration system requires an innovative method to develop learning leaders. Action learning has appeared as one of the most prevailing and operative devices engaged by global organizations to grow and shape their leader. Responding to the challenges of the Twenty-First Century, school principals have to resolve their precarious, multifaceted problems, as well as to cultivate the capabilities and traits required if they are to flourish in the 21st Century (Somprach & Tang, 2016). Kouzes and Posner (2016) further argued that good learning leadership was a practice, which should be strengthened on a daily basis, and which required school leaders to be constantly learning. Although Kouzes and Posner have suggested five fundamental phases to be a typical leader, namely believing in yourself, aspiring to excel, challenging yourself, engaging support, and practicing deliberately, yet to what extent these fundamental phases are relevant to Thai secondary school principals is still questionable.

Seijts (2013) made the point that there was no question that outstanding school principals with self-reliance proceed to make challenging resolutions. In addition, they exhibit a wish to lead and the normal capability to appeal subordinates. However, other school principals have been fostered, with many thriving regardless of being thrust, often hesitantly, into leadership roles. It can be concluded that school principals of whichever kind have been recognized to outshine or be unsuccessful to live up to their potential. Therefore, good leaders have to develop through constant learning about their personalities, and promoting this as a major concern. Since research on effective leadership styles has been only studied to a limited extent in Thailand (Somprach et al., 2016), an investigation of learning leadership indicators in the Thai context is urgently needed. By providing guidelines with regard to developing the learning leadership skills of secondary school principals, school organizations with any style of leadership culture need to dedicate themselves, to creating learning leadership as a matter of urgency, and offering a diversity of organized chances for learning. This is a necessity in order to respond to the recent Thailand education reforms.

Somprach et al., (2016) studied the association between school leadership and professional learning communities in Thai basic education schools. They found that the overall ratings for all the nine leadership styles, namely strategic, transformational, invitational, ethical, learning, political, entrepreneurial,

collaborative, and sustainable indicated that they were highly practiced by school principals. Their findings showed that the three most preferred leadership styles—political, sustainable, and ethical—failed to be significant predictors of the promotion of professional learning communities. On the other hand, learning leadership, which was not favored by school principals, was found to be the most significant predictor of the substitution and accomplishment of school cultures that stimulate collaborative working relationships and the maintenance of teachers' continuing learning. Somprach et al.'s findings imply that learning leadership seems to be neglected, although this leadership style clearly indicates why learning-centered leadership is pertinent to present methods and consequences that they supported as it is the fundamental reason for a school's reality and perseverance.

This study's outcome is a set of comprehensive guidelines to develop learning leadership skills that can be utilized to unleash internal-leaders and to the construction of a concrete base for an era of leadership development and mastery. The findings of this study offer an actual framework that can be used to aid individuals at all levels, functions and background, allowing themselves to take control of their personal leadership growth, and transform them into the greatest leaders they can be. In addition, the findings of this study would be useful for managing schools, and for formulating policies and objectives for planning educational management. In terms of information, it can

be utilized to monitor, assess, and evaluate principals' performance, ensure quality assurance, require them to reflect on their responsibilities with regard to their duty, and to set goals that are measurable.

### **Concluding the Concepts of Learning Leadership**

The Centre for Educational Research and Innovation (Centre for Educational Research and Innovation [CERI], 2013) provided an in-depth investigation of what learning leadership means, conceptually and in practice. OECD (2013) defined learning leadership as being at the center of all modifications and plan processes, as learners' learning is at the heart of the school, with the core work being to ensure deep 21st Century learning, in any kind of environment. Dimmock (2012) defined learning leadership as (i) learning centered on emphasizing leadership of curricula, teaching, and learning; (ii) distributed so that leadership empowers teachers and builds the capacity of available human capital, and (iii) community networked, thereby benefiting from the resources of other schools and the community. The researchers have conceptualized learning leadership according to conclusions made in the CERI report (2013) as follows:

**Learning Leadership is Critical For Reform And Innovation.** Learning leadership is vital because it is so prominent in terms of ways and consequences, whether at the micro-level of schools and learning settings, or with regards to

larger systems. Learning is the central occupation of education, and consequently is the principal procedure and specialized feature of leadership. Hence, learning leadership is concentrated on generating and supporting settings that encourages good learning. Innovation is an essential aspect of the implementation of learning leadership in locating innovative instructions and manipulating learning settings.

**Learning Leadership is Incorporated in the Design, Implementation, and Sustainability of Prevailing Innovative Learning Settings.** Learning leadership is about setting ways and taking accountability for creating how it happens. It is used through distributed, connected activity, and through relationships. It spreads beyond formal staff to include a range of different partners, and may be implemented at different levels of the whole learning system. It includes “learning management” in the pledge to renovate, endure, and make modifications happen.

**Learning Leadership Puts Generating the Circumstances for the 21<sup>st</sup> Century Learning and Teaching at the Center of Leadership Practice.** Students’ learning is at the heart of the school organization and is the central business that guarantees 21<sup>st</sup> Century learning. Designing and evolving innovative learning settings to meet such expectations requires highly challenging teaching inventories, and for everyone to continue learning, unlearning, and relearning. Continuous learning on the

part of all staff or partners is necessary for successful operation and sustainability.

**Learning Leadership Requires the Demonstration of Creativity and Often Encouraging.** The exercise of creativity includes inventing, designing, getting others on board, and re-designing the learning process. Transformation is aimed to encourage profound shifts in mind set and practice, as well as the capability to retain the individual’s long-term vision, even if the preliminary point may be incremental. The leadership emphasis is on profound modifications to practice, structures, and cultures, but not just interfering, and guaranteeing that supportive situations are in place.

**Learning Leadership Models Cultivate 21<sup>st</sup> Century Professionalism.** Hence, learning leaders must be high-level knowledge workers through proficient learning, inquiry and self-evaluation. Leaders do not only involve themselves in suitable learning but also create conditions for others to do the same. They exhibit and extend a parallel professionalism through their wider communities. Professional learning combines theory and practice, with chances for applied testing in teaching and organization, learning from the involvement and taking account of reactions.

To achieve that, leaders must take accountability for guaranteeing that all teachers investigate and assess their practice. Mentors and other learning fellows share knowledge and work to research and collect

evidence on innovative and improved teaching practices and their implementation. Then collaboration will be achieved across the learning setting, with importance being given to peer learning from implicit knowledge, and the preferment of shared teacher decision-making on the assumption of evidence-informed practices (OECD, 2013).

### Literature Reviews

Somprach et al., (2016) have explored the vital role of leadership styles on the part of school principals in inspiring teachers' involvement in professional learning communities in basic education schools in north eastern Thailand. A total of 731 respondents have participated in this quantitative survey study. Although teachers' involvement in professional learning communities was significantly associated with all the nine leadership styles studied at a significance level of 0.05, learning leadership had the strongest correlation ( $r$  value = 0.683;  $p < 0.05$ ). On top of that, a stepwise regression analysis to identify significant predictors for teachers' participation in professional learning communities showed that learning leadership ( $\beta = 0.260$ ) was the most important predictor, followed by transformational leadership ( $\beta = 0.242$ ), collaborative leadership ( $\beta = 0.180$ ), and invitational leadership ( $\beta = 0.150$ ). In brief, these four variables showed a linear relationship with teachers' participation in professional learning communities. The adjusted  $R^2$  value of 0.466 indicating the

impact of learning leadership on teachers' participation in professional learning communities, was 46.6%. All the four leadership styles accounted for 55.6% of the variation in teachers' involvement in professional learning communities.

Somprach and Tang (2016) utilized grounded theory as a systematic methodology involving the construction of learning leadership theory through the analysis of data. A total of six outstanding principals, three from each educational level, namely primary and secondary, were selected as respondents. Their findings revealed that the learning leadership on the part of school principals consisting of 10 attributes: (i) creativity and courage; (ii) powerful environment for learning; (iii) flexibility; (iv) integration; (v) technologies application; (vi) team learning; (vii) self-directed learning; (viii) transformational tailor-made processes; (ix) sufficiency economic philosophy, and (x) research. These learning leadership attributes of the chosen principals led to an improvement in the efficiency of management, teaching, and learning of the school community thus leading to the development of a learning community. Their findings are in line with the National Education Plan of Thailand (2009–2016).

### Objectives of the Study

The main objective of this study is to develop the learning leadership indicators for school principals in the northeast of Thailand. More specifically, the study sought to:

1. Identify the key factors and indicators with regards to learning leadership for secondary school principals.
2. Test the goodness-of-fit of the learning leadership indicators with the empirical data.
3. Investigate the approach and identify guidelines for developing learning leadership on the part of secondary school principals.

## METHODS

### Research Design

Researchers employed a mixed mode method comprising of philosophical assumptions that guide the way in which the data are collected and analyzed, through a combination of qualitative and quantitative methods. The research process involves three phases namely planning, searching, discovery, reflection, synthesis, revision, and learning. The method emphasizes on collecting, analyzing, and combining both quantitative and qualitative data in a single study. Its vital principle is the use of quantitative and qualitative methods in combination to provide a better understanding of research problems than either method alone.

### Research Samples and Procedures

This research is composed of three phases:

**Phase 1: Conceptualization of Learning Leadership Indicators.** This phase of the research includes activities with solid

conceptual components in order to identify the indicators of learning leadership. According to Brink, Van Rensburg, and Van der Walt (2012), conceptualization refers to the process of emerging and filtering non-concrete ideas. During this phase, researchers categorized and developed learning leadership indicators to form a framework by analyzing documents and related previous research, as well as interviewing five academic experts. Thus, the actions include thinking, rethinking, theorizing, making decisions, and reviewing ideas with the help of experts. Researchers involved applied the skills and capabilities of creativity, analysis and insight, as well as using the fixed grounding of existing research on learning leadership to conceptualize the indicators.

### Phase 2: Constructing a Survey.

Researchers employed a five-scale rating survey questionnaire as a method of collecting quantitative data. At this phase, the research population consisted of all the secondary school principals who are affiliated with Secondary Education Service Area Office 19 to 33 under the administration of the Basic Education Commission in the northeast of Thailand. Thompson (2004) proposed that at least 200 respondents must be tested in order to achieve an established solution through factor analysis. Meyers, Gamst, and Guarino (2006) proposed that a suitable sample size depended on the numbers of items available for factor analysis. Rules of thumb for formulating an adequate sample

size ( $N$ ) are identified as being of restricted use in achieving an acceptable probability for the required empirical outcomes (e.g., model convergence, statistical precision, statistical power) for a particular application of confirmatory factor analysis (CFA) with real data (Marsh, Hau, Balla, & Grayson, 1998). General rules of thumb for defining an adequate  $N$  for a specific application of CFA include, but are not restricted to,  $N \geq 200$ , ratio of  $N$  to the number of variables in a model ( $p$ ),  $N/p \geq 10$ ; the ratio of  $N$  to the number of model parameters ( $q$ ),  $N/q \geq 5$ ; and a reverse relationship between construct reliability and adequate  $N$ . Even when model-data assumptions are made that are seldom observed in practice, and replicated data are analyzed, the performance of these rules of thumb has restricted the capability of methodologists to identify conclusive guidelines for adequate  $N$  across the myriad of model-data conditions observed in practice (Gagné & Hancock, 2006; Jackson, 2001). The central problem with these rules of thumb stated that adequate  $N$  for CFA is subject to many factors that naturally differ across any two studies using real data and vague theoretical models (e.g., distribution of variables, reliability of indicators, size of the model, degree of model misspecification).

After taking into account the aforementioned consideration, it was decided that the ratio of parameter and samples should be 20:1. In this research, there were 38 parameters that led to a sample of not less than 760. A multistage sampling technique was administered, and the

required sample size was 780 participants, as stated by Yamane's (1970) formula at the 95% confidence level. The survey was mainly designed as a quality assessment of the developed learning leadership indicators in Phase 1. The aim of Phase 2 was to make use of theories and/or hypotheses pertaining to the phenomenon under consideration. The process of measurement was to provide the fundamental connection between empirical observation and the theoretical construct of quantitative relationships involving empirical data. The relationships are represented by regression or path coefficients between the learning leadership indicators.

**Phase 3: Investigating the Approach and Guidelines for Developing Learning Leadership Skills.** A focus group discussion was used to bring together nine experts from various backgrounds and with a great deal of experience to discuss the approach and review the guidelines for developing learning leadership skills. The group of experts consisted of three college lecturers at the associate professor level who are doctoral degree holders, three directors of educational service areas with doctoral degrees, two school principals with doctoral degrees, and an educational supervisor. The strong point of this focus group discussion was that it permits the experts to exchange their ideas and opinions in order to deliver an understanding of what the expert group thought about the most appropriate approach, about the assortment of view and indications, and

about the discrepancies and distinctions that exist in a particular community in terms of principles and their experiences and practices. This focus group discussion was used to explore the meanings of the survey findings in Phase 2 that cannot be explained statistically, the range of opinions or views on learning leadership skills, and to collect an extensive amount of local experience before developing guidelines in terms of learning leadership development.

The final step was to evaluate the suitability of the developed approach and the guidelines of learning leadership skills development with the help of 12 experts using an assessment of its suitability and possibility of application. The 12 experts comprised three university lecturers at the associate professor level who are doctoral degree holders, three doctoral degree experts in educational administration or authors with equivalent of books related to leadership development, three directors of educational service areas with doctoral degree, two school principals with doctoral degrees, and an educational supervisor in the field of educational assessment.

### **Data Analysis**

Quantitative data was analyzed using descriptive statistics and Structural Equation Modelling (SEM), while the qualitative data was analyzed using content analysis. Researchers used SEM techniques to evaluate how closely a theoretical model fits an actual data set in order to test the hypothesized model. SEM is a combination of factor analysis and regression or path

analysis. The interest of SEM often relates to the study of theoretical constructs, which are represented by the latent factor. The relationships between the theoretical constructs are represented by regression or path coefficients between the factors. The structural equation model implies a structure for the covariance between the observed variables. SEM provides a very wide-ranging and appropriate framework for statistical analysis that includes several traditional multivariate procedures such as factor analysis, regression analysis, discriminate analysis, and canonical correlation as a special case. Structural equation models are often envisioned through the use of a graphical path diagram. The statistical model is usually exemplified in a set of matrix equations.

Mplus program was used to analyze the relationship among the factor groups for research hypotheses within SEM that allows the model to be detailed graphically, by permitting the user to draw the path diagram directly in an interactive command window. Use of those analyses is consistent with previous leadership research (e.g., Prasertcharoensuk, Somprach, & Tang, 2017; Prasertcharoensuk & Tang, 2016; Prasertcharoensuk & Tang, 2017; Thanomwan, Keow Ngang, Prakittiya, & Sermpong, June 2017). Confirmatory factor analysis (CFA) was used to examine correlations between latent variables and the observed variables and path analysis was used to examine the structural model (correlation between latent variables).

CFA is a commonly used statistical device for investigating the nature and relationships among latent constructs. CFA clearly tests a priori hypotheses about relationships between observed variables and latent variables or factors. CFA is part of SEM, and plays a vital role in measurement model validation in path or structural analyses (Brown, 2006; MacCallum & Austin, 2000). Researchers assessed the measurement model as to whether or not the measured variables had accurately reflected the desired constructs or factors, before assessing the structural model.

In this study, the aim of SEM is twofold. First, it aims to obtain estimates of the parameters of the model, such as the factor loading, the variances and covariance of the factor, and the residual error variances of the observed variables. The second aim is to assess the fit of the model, for example, assessing whether or not the model itself provides a good fit to the data.

Absolute fit indices indicate how well a preceding model fits the sample data (McDonald & Ho, 2002) and establishes which proposed model has the best fit. These measures offer the most vigorous suggestion as to how well the proposed theory fits the data. Unlike incremental fit indices, its aim is not to rely on a comparison with a baseline model, but instead to measure how well the model fits in comparison to no model at all (Jöreskog & Sörbom, 1993). The variance-covariance matrix was analyzed using the maximum-likelihood estimation and using multiple indices of model fit including the Chi-Square statistic ( $\chi^2$ ), the

Standardized root mean square residual (SRMR), the Comparative fit index (CFI), the Goodness-of-fit statistic (GFI), the Adjusted goodness-of-fit statistic (AGFI), Normed-fit index (NFI), the Tucker-Lewis index (TLI), and the Root mean square error of approximation (RMSEA).

Content analysis is a research tool used to govern the occurrence of certain words or concepts within texts and sets of texts. The researchers quantify and analyze the presence, meanings, and relationships of such words and concepts, then make inferences about the messages within the texts. First, the researchers would transcribe all the data collected from the interviews to get a general sense of the whole, and of the ideas presented. To conduct a content analysis on such text, the text is coded, or broken down, into manageable categories on a variety of levels, that is, word, word sense, phrase, sentence, or theme, and then it is examined using conceptual analysis.

## RESULTS AND DATA ANALYSIS

The results of this study are presented in line with the research objectives indicated earlier. The initial results are the conceptualization in terms of learning leadership, to identify the key factors and indicators of learning leadership for secondary school principals. This is followed by factor loading and an assessment of the validity of the observable variables to test the goodness-of-fit of the learning leadership indicators with the empirical data. Finally, approaches and guidelines for developing learning leadership skills are presented.

### Identification of Learning Leadership Indicators

According to the investigation of the synthesis of concepts, theories and previous research, the key factors of learning leadership are (i) creativity and courage; (ii) creation of an environment that supports learning and innovation; (iii) flexibility; (iv) integration; (v) the application of high technology in management and learning; (vi) team learning; (vii) self-directed learning; (viii) transformational tailor-made processes; and (ix) ethics in sufficiency philosophy. The

findings of the first phase indicated that there are 60 learning leadership indicators, which derived from the nine key factors, as shown in Table 1. This is coupled with the five experts' recommendations with regards to fitting the 60 learning leadership indicators with the nine key factors based on the Thai context. The majority of the five experts suggested to use the mean score of 3.00 or more as a cut-off point, and the coefficient of dispersion as 20% or less, in order to synthesize those factors on the grounding of existing research on learning leadership.

Table 1  
*Learning leadership indicators*

Factors of learning leadership	No. of indicator
Creativity and courage	7
Creation of an environment that supporting learning and innovation	6
Flexibility	6
Integration	6
Usage of high technology in management and learning	6
Team learning	8
Self-directed learning	9
Transformational tailor-made processes	6
Ethics in sufficiency philosophy	6
Total	60

### Goodness-of-Fit of the Learning Leadership Indicators with the Empirical Data

In the second phase of this study, researchers aimed to obtain estimates of the parameters of the learning leadership model, the factor loading, and the validity of the observable factors of learning leadership. As indicated in Table 2, the factor loading of all the learning leadership factors ranged from 0.901 to 0.964, and are statistically

significant at 0.01. Factor loading refers to the importance of the standard indicators of each factor in the learning leadership model of secondary school principals that had been taken into consideration. The covariance with the learning leadership factors ranged from 81.20-92.90%. The factor with the highest factor loading was the creation of an environment that supports learning and innovation. This was followed by self-directed learning, team learning, creativity

and courage, usage of high technology in management and learning, transformational tailor-made processes, flexibility, and the ethics in sufficiency philosophy. The factor

that had the lowest factor loading was integration. As a result, all the key factors are found to be important constructs of learning leadership.

Table 2  
*Factor loading of learning leadership factors*

Factors	Factor loading ( $\beta$ )	Prediction coefficient ( $R^2$ )
Creation of an environment that supports learning and innovation	0.964	0.929
Self-directed learning	0.952	0.906
Team learning	0.950	0.902
Creativity and courage	0.949	0.900
Usage of high technology in management and learning	0.932	0.869
Transformational tailor-made processes	0.918	0.842
Flexibility	0.908	0.824
Ethics in sufficiency philosophy	0.906	0.821
Integration	0.901	0.812

In structural equation modeling, the fit indices establish whether, overall, the model is acceptable. The result revealed that the learning leadership model has a goodness of fit with the obtained data of,  $\chi^2 = 344.241$ ,  $df = 307$ ,  $\chi^2/df = 1.1213$ , CFI = 0.996, TLI = 0.995, RMSEA = 0.019, and SRMR = .019. The relative chi-square is also called the normed chi-square. This value equals the chi-square index divided by the degrees of freedom ( $\chi^2/df$ ). The criterion for acceptance varies across researchers, ranging from less than 2 (Ullman, 2001) to less than 5 (Schumacker & Lomax, 2004). SRMR values (0.019) lower than 0.05 indicate well-fitting models (Byrne, 1998; Diamantopoulos & Siguaw, 2000). A value of CFI 0.996 Diamantopoulos and Siguaw recognised as indicative of good fit (Hu & Bentler, 1999). A cut-off point of 0.95 has been recommended for the GFI

(Miles & Shevlin, 1998). Values of 0.90 or greater indicate well-fitting models for the AGFI (Hooper, Coughlan, & Mullen, 2008). Besides, Hu and Bentler (1999) recommended NFI and TLI values of .95 or higher. Recently, a cut-off value for RMSEA close to .06 (Hu & Bentler, 1999) or a stringent upper limit of 0.07 (Steiger, 2007) is recommended. Although the chi square is the standard statistic to assess the overall fit of the model to the data, it is practically impossible not to reject the null hypothesis when large samples were used (Jöreskog & Sörbom, 1993). Finally, it was found that the learning leadership model agreed with the empirical data. As a result, the model was acceptance and researchers could establish whether specific paths were significant as illustrated in Figure 1. Table 3 indicates the three most highly weighted indicators of each learning leadership factor.

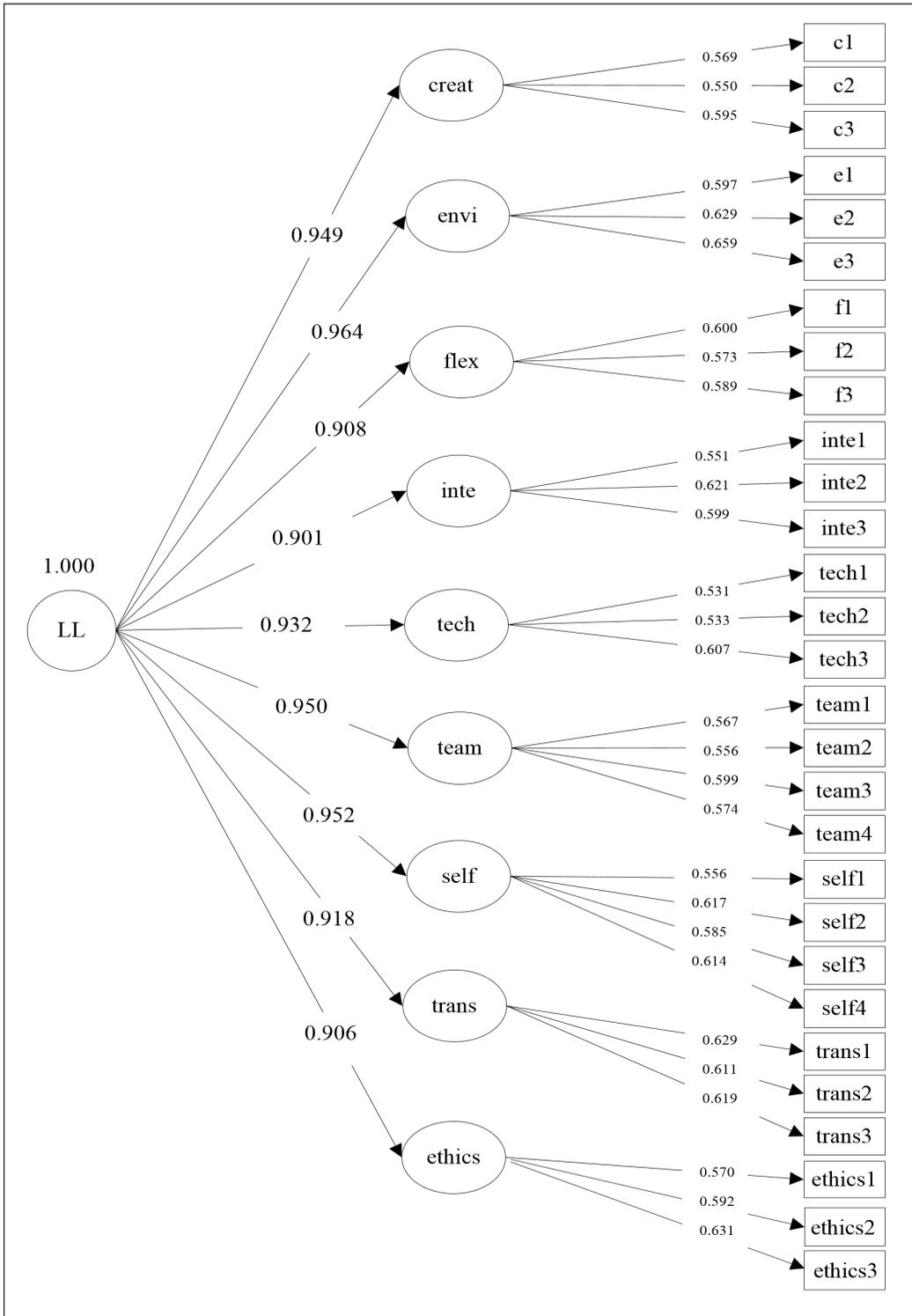


Figure 1. Learning leadership model

Table 3  
*The first three most highly weighted indicators*

Key factors	Indicators
Creativity and courage	Elaborate thinking Rapid thinking Connected and critical thinking
Creation of an environment that supports learning and innovation	System management approach Construction of innovation Learning development
Flexibility	Being open to new ideas Being responsive to rapid change Providing freedom in ideas or recommendations
Integration	Application of the approach Construction a knowledge base Learning from experience
Usage of high technology in management and learning	Management by technology application Technology application policy Technology evaluation
Team learning	Creating innovations for learning and teaching Designing and constructing learning models in school Setting common goals
Self-directed learning	Research and development Planning for further study Building intrinsic motivation
Transformational tailor-made processes	Task assignment Professional development Acceptance of individual differences
Ethics in sufficiency philosophy	Deep and sustainable knowledge Social justice responsibility Understanding and ethical reasoning

**Approach and Guidelines for Developing Learning Leadership Skills**

Based on the three most highly weighted indicators of each learning leadership factor, coupled with the findings from the focus group discussion involving nine experts, researchers managed to draft the approach and guidelines needed to develop the learning leadership skills of secondary school principals. These are as follows:

1. Teachers’ learning management

should be focused by considering both physical and mental issues, in order to improve the creation of an environment that supports learning and innovation factors. The principals should expand their libraries to become a learning center, and also seek cooperation from other sectors.

2. Principals are encouraged to plan their own learning development, build their internal motivation, and

- develop their critical, analytical and reflecting thinking, in order to promote their own self-directed learning.
3. In order to enhance team learning, principals should be required to attend training courses so that they are able to design a learning model utilizing systematic concepts, preserving learning customs and emphasizing learning belief and values.
  4. Case studies boost the creativity and courage of principals by enhancing their thinking skills in terms of making them more deliberate, by sharpening their advanced thinking skills, and by speeding and connecting their abilities, which are keys for successful performance and innovation.
  5. The principals should act as significant role models in terms of various programs related to evaluation and quality management, and also introduce policies for supporting the usage of technology. This should be emphasized to promote the usage of high technology in management and as a learning factor.
  6. Principals are encouraged to attend training courses and learn from excellently performed school organizations with regards to various aspects such as job assignment, career development, smart human management, and conflict management. A consequence of this would be to change their mind set in terms of individual differences as a means of improving their transformational tailor-made processes.
  7. To increase flexibility, principals should adapt themselves to change by attending seminars to raise their awareness, improve relationships and increase motivation, thus providing opportunities for them to receive comments from various channels before they draw up their organizational development programs.
  8. Self-sufficiency economy philosophy includes self and social responsibilities and discipline which have been adopted by most of the schools. However, this knowledge needs to be broadened and deepened to be sustainable. More policies and work plans for social responsibility and fairness should be introduced, and patience and responsibility should be emphasized in order to elaborate ethics in sufficiency philosophy.
  9. Training, seminars, and empirical learning should be implemented to extend and adapt knowledge, thus integrating it into actual learning experiences. This approach enables us to enhance integration in the field of science and techniques.

With regards to the aforementioned guidelines, the following steps are recommended as an approach to develop learning leadership skills:

Step 1: Determine the needs for learning leadership development

Step 2: Plan the learning leadership development

- Objectives and projects
- Project framework
- Determination of development means – self-development, training, study trips, workshops, career training and consultation, and initiating career learning community.

Step 3: Select methods

Step 4: Develop

Step 5: Monitor, observe and assess.

Finally, the drafted guidelines and approach were evaluated by 10 experts regarding their suitability in identifying the learning leadership skills of secondary school principals in Thailand. All the 10 experts had made quite positive comments and ranked the criteria of suitability and possibility assessment highly, including the suitability, possibility and usefulness of the developed approach and guidelines. Table 4 indicates the assessment results from the 10 experts.

Table 4  
*Suitability and possibility assessment*

Suitability and possibility	Mean score ( $\bar{X}$ )
<b>Suitability</b>	
Concept and principle	4.43
Monitoring, observation, and assessment	4.42
<b>Possibility</b>	
Learning leadership development objectives	4.47
Concept and developing principle	4.45

**DISCUSSION AND CONCLUSION**

A model linking learning leadership with its key factors and indicators was proposed and tested. The findings showed that all the nine key factors have strong significant and positive effect on learning leadership. Considering the first three orders, it was found that the highest prediction effect was

creation of an environment that supports learning and innovation, self-directed learning, and team learning. Hence, good learning leaders have to follow a challenging and never-ending path of learning, which requires an open mind. However, having this character required the school principals to put ego aside and treat collaboration as more important than anything ever before.

The vital findings of this study are on the importance of the standard factor loading of each key factor in the learning leadership model. These findings revealed that all of the synthesized factors of learning leadership conformed well at a statistically significant level with the empirical data (Tuksino, 2009). Hence, all of the nine key factors have been identified as essential factors, and seem to be in accordance with both theory and previous research studies (Somprach et al., 2016; Somprach & Tang, 2016). This is for two main reasons. First, an empirical definition was adopted based on the work of various scholars as revealed in the literature, including domestic and international articles which were elaborately reviewed. This enables the researchers to increase the possibility of accurately defining the terms according to the objectives of the research. Moreover, the results indicate that the assigned indicators conformed very well with the empirical data at a statistically significant level. This result is parallel with Wirachchai's (2002) study. Wirachchai mentioned that the empirical definition was close to the theoretical definition, and was supported by theory, concepts, academic documents, and studies. Second, researchers created a theoretical conceptual framework that was acceptable, in order to assess the quality of the developed indicators. Concepts were also identified through the interviews involving educational experts in Thailand who possessed significant levels of experience in terms of educational management in Thailand.

Nevertheless, the results illustrated that the GFI of the learning leadership model, followed by the designated criteria, revealed a structural relationship between the learning leadership of the principals and the empirical data. The most significant key factor in terms of learning leadership was the creation of an environment that supports learning and innovation. This implies that physical and mental environments play an important role in stimulating learning and is not limited only to the classroom. In the current digital era, knowledge can easily be accessed, and provided room for learning resources with a cost free basis. Thus, learning leadership practice enables principals to manage conflict through successful leadership interactions, and by coaching their staff to develop their potential, as indicated by Somprach et al., (2016). The suggested approach to developing learning leadership skills will help principals to develop resilience in the face of adversity, as indicated by Kohlreiser (2013).

Obviously, a better understanding of the relations among the indicators is essential for learning leadership model research. This study provides initial evidence about their causal relations. Furthermore, the findings of the experts have provided clear and practical messages for school principals that learning leadership is part of innovation learning creation. As a result, school principals should understand the strengths and weaknesses of their team, and be flexible in building new methods that challenging learning abilities (Somprach &

Tang, 2016). It is, therefore, recommended that school principals should communicate well among the team, resolve conflicts among the team members, and train their team to develop their potentialities while they are utilizing the created guidelines.

Finally, researchers would like to suggest to the Thailand Ministry of Education that they should prepare a leader preparation training program, including the learning leadership skills development approach of this study. School administrators at all levels must play a role in the learning process as “learning leaders” who lead learning as they learn to lead. The two most important key factors, namely the “creation of an environment that supports learning and innovation” and “self-directed learning,” should be highlighted during the professional development process. The emphasis is on demonstrable behaviors, focusing on a team, and promoting learning across the board, and on learning that supports transformative actions, as these involve changes in throughputs and are measured by results (Altman & Iles, 1998). As to the structural model of learning leadership, its main aim is to highlight the centrality of leadership and team work in secondary school organizational learning. It can, however, become an analytical tool by serving as a comparative benchmark for learning organizations, and for furthering much-needed empirical study on how organizations learn.

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## **Edutainment Games and Mental Skills**

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### **ABSTRACT**

Easy edutainment games are usually found on the internet, which reinforce different mental skills in users/players. These games that are mostly originated from card and board games of ancient times are able to enhance complex mental skills and concepts in their users with simple yet subtle methods. Different researches have used different criteria to assess video games; however, no specific study has attempted to analyze the educational aspects of free, simple, and low volume internet games that are made by non-famous and non-mainstream game producers; the games that absorb a more extensive population of players at more different situations of everyday life. The study, on the basis of the cognitive theory of learning, targets these easily accessible games that are made by very small budgets and are often played as hobbies by people from different age groups, compared to high-budget games that target specific players of specific skills and ages. This study resulted from a research on 100 free and easy to access internet computer games, attempts to examine them on the basis of a list of mental skills from the previously available literature. The outcome of the study is two comparative tables, the results of which show that free, simple, and low volume internet games also play a great role in promoting mental and feeling-related skills and should be taken more seriously than mere hobbies.

*Keywords:* Computer & video games, edutainment games, game, mental skills

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### **INTRODUCTION**

It's over a decade that video-computer games (VCGs) industry has changed into a profitable, even more than Hollywood industry. It seems that the main customers of this industry are young children and destructive effect of unsuitable contents

(violent and sexual) available in these games has caused a moral panic, even in western societies. Yet, educational benefits of these games are so remarkable that researchers and pedagogists cannot neglect them. According to Gee (2003), there have been considered 31 progressive educational principles, which are not found in educational systems of the world.

In recent years, the development of information technology is rapidly grown under the popularization of the Internet. Pedagogy and teaching strategy tend to become the integration of digital learning environment, for which digital game-based learning is an example. Digital game-based learning is a relative new interdisciplinary research field which combines the game theory, learning theory and information technology processing. Various studies pointed out that integrating the “game” into learning process is a great positive and effective way for learning. It could be taken into account that digital game-based learning is strongly an interactive learning method because most of children like games (Gee, 2003; Kim & Kim, 2005; Nagy, Komuves, Bojda, & Iszaly, 2005; Prensky, 2007; Shaffer, 2006).

With the variety of growth of games, the attention has been turned into the educational aspect. Yet, educational aspects are not limited to merely educational games but they consist of simple games (such as card games) the educational capacities of which are little paid attention to. These games are easily and freely downloaded from the internet or can be played online.

In this paper, having studied 100 simple and easy to access internet games, we tried to elicit their educational capacities.

In order to provide a literate regarding this group of games that are classified into edutainment category, in the following we define the educational aspects of traditional games first, and then we consider the new entertaining capacities provided by modern video games, and in the end we talk about the simultaneously educational and entertaining opportunities of these modern video games.

### **Educational Games**

Human being has attempted to transfer concepts and experiences through various media. Therefore, edutainment games are not human being’s new invention. They are games basically designed and manufactured to educate a special topic, to expand the concepts and to make the people understand specific skills during the play.

Game has a long history and even scholars cannot investigate the origin of game and the time it came to exist. Psychologists think that the infants start to play game in their childhood and the first game they become familiar with is to play with their hands (Garner, 1998). When they grow up, they will find more ways to play their hands, such as: grabbing objects, using hands to make things to other appearance, and so on. Besides the function of game, it is also a method for children to know things. Many researchers find that games do not only existing in the human society

but also games exist in the life of mammals. Thus, Karl Groos the German biologist modified Spencer's conserving mental theory (Spencer, 1968), and Schiller's surplus energy (Evans & Pellegrini, 1997), proposed an evolutionary instrumentalist theory of play (Groos, 1912). He proposed that playing game is not an activity without a purpose but a preparation for the real life in advance. Giving examples such as playing house is a game for girls to be familiar to the housework and piggyback fight is a game for boys to gain physical power to withstand enemies for someday. In addition to the above games, there are some classic paper-based games like hang man, crossword, and Sudoku. These games are all popular and famous. The reason why they are successful games is that the game can attract people and lead people to ecstasy state. The usage of these games is approximately to develop skills or just for fun. As time goes by, people know the importance of education and also realize that games are not merely for fun but also can ease the tension atmosphere. And this is the original idea why people combine learning and play together. This is the origin of game-based learning (Hsu, Wu, Huang, Jeng, & Huang, 2008).

Since game is a human activity and not a specific subject matter, the nature of this inquiry is decidedly interdisciplinary (Bittanti, 2004). In fact, these games are various types of simultaneous combination of entertainment and educational skills. Huizinga (2016) wrote, "Let my playing be my learning, and my learning be my playing."

One notable characteristic of these contemporary games is the emphasis placed on maintaining an enjoyable gaming experience, which is often prioritized over the regularity and frequency of learning content. Whereas this may initially seem a misguided approach in consideration that a positive learning outcome is the ultimate goal, one must consider that the effect of doing the opposite, that is, prioritizing learning content over gaming, is considerably worse. Without an immersive gaming experience, the benefits of using games as a motivational vehicle for learning become compromised. It has been identified by a number of authors that an educational game must be a game first and an educational tool second (Peirce, Conlan, & Wade, 2008).

Games provide a forum in which learning arises as a result of tasks stimulated by the content of the games, knowledge is developed through the content of the game, and skills are developed as a result of playing the game (McFarlane, Sparrowhawk, & Heald, 2002).

Educational games, basically mind dependent, which are generally known as edutainment games are classified into board games, card games, and video games, explained as follow.

### **Board Games**

Board game is a game with specific rules formed by displacing elements on a board or sheet. There are different games, some of which are at the preliminary level and free from implicit concept. Board game is of a long history among societies with samples

found in Egypt, Mehen, in China, Go, in Maya, Patolli. The oldest game is Senet in Egypt dating back to 3500–3100 BC. The most strategic game is Weiqi, considered as a superior art along with painting, music and calligraphy in ancient China and Confucius focused on using it in Analects (Bell, 1980; Parlett, 1999).

In this game, simple movements brought various and complex destinations and they prevented from withdrawing against the opponent propagating mental skills. Although Weiqi is a set of current rules in simple geometric models on the game board, there appears a complex interaction and balance that reflects different stations of life while using real and unreal world representations. The created models in this game are but artistic achievements to insight realized through creative spirit.

The main indices on which board games are based are chance, strategy, and diplomacy so that the best game exploits all these three. Diplomacy is the most interesting factor meaning the cooperation in play posed in three or more person games. Its aim is to prevent from other superior opponent's victory.

The most important feature of board games is the need to high concentration and adequate mastering on all aspects of games such as possible movements and predicting different situations, consequential interactions with opponents on turning the loss to victory in one moment. Board games with specific rules organize the aggressive tendency of human being while teaching various methods of overcoming undesirable

situations (Gobet, Voogt, & Retschitzki, 2004).

Many scientific researches show that chess game as one of the ability most well-known of board games increases reading, mathematical reasoning and intelligence the cause of which has been related to brain connections.

### **Card Games**

Card game is a game that uses specific cards, directly. They are classified into different versions based on their origin and use. The victory of card games dates back to the ninety century A.D in china. Its modern version dates back to the late 1300 in Egypt in the form of a 52 set of paper cards. These cards represented an artistic ability in their production and the artists tried to enhance the artistic quality of the cards through using modern methods or capabilities (Katz, 2004; Rau, 2004).

Some cards have been designed to teach indirectly particular subjects in the field of history or mathematics and in general to increase memory power.

Card games can help to increase some abilities such as team working, strategy, logics, intuition, and risk assessment in players. They can increase abilities of classification, counting, prioritizing, follow-up spirit, and endurance.

Recently, Charles R. Nesson, a professor of law faculty in Harvard University founded an association entitled Global Poker Strategic Thinking Society (<http://gpsts.org>) to introduce the benefits of card games where the law students try to

increase their capacities through playing card games. According to professor Nesson, playing card games helps to bring up more knowledgeable lawyer.

Professor Arnold I. Barnett, from management faculty in M.I.T, says that there are many problems in poker that can let students understand the red situations of life. The researches of the past two decades show that the students playing card games in schools have higher potentiality in learning (Rivlin, 2007).

### Video Games

While it took several millennia for games to evolve from being played in a sandbox to a virtual video world, it has taken only a couple of decades for video games to progress from mere moving dot and lines (e.g., *Pong*) to three-dimensional graphical avatars playable on the Internet (e.g., *World of Warcraft*). At one time, particularly in the 1970s, the term *video games* meant “games played in a video arcade.” However, in today’s context, the term is used broadly to include all digital games playable on a device with video screen, which would include computers, game consoles, cellular phones, and mobile devices.

Video games and computer games have become an important part of young people’s lives particularly in advanced countries. Young people are often called the Net Generation (Lippincott, 2005; Topscott, 1999), the Gamer Generation, and Digital Natives because they have embraced and learned to speak the digital language of computers, video games, and the

Internet (Carstens & Beck, 2005). However, the impact of growing up with digital technologies is unclear. The assumption is that digital technologies are changing the new generations’ values, learning skills, and educational achievements (Prensky, 2001). The interest is increasing in computer games as the next generation’s educational method, and the research body on learning based on games is growing more than ever before. The focus of the research includes increasing specific abilities of teachers in using computer games and the effects of gaming. Recently, some researchers have addressed the learning processes and different individual factors for efficient learning (Chamorro-Premuzic & Furnham, 2003; Shaffer, Squire, Halverson, & Gee, 2005).

During the past two decades, graphics and visual effects are promoted along with the growth of technology and widespread of videogames, so that they have found a deep concept and complexity to make them out of one dimensionality and to create a virtual environment for users simulated with the real world. The transmission of information and concept becomes so easy. Some basic features of today computer games influenced by modern technology growth are given in the following sections.

### Experiencing Impossible Conditions and Situations

Users enter the game environment while providing different virtual situations that are inaccessible in the outer world, such as driving crazily, bank robbery, consequent

homicide, and airplane control. And then they start to play a role in the form of main character to experience wonderful situations.

### **Lack of Necessity to Physical Activity**

In fact, all of the simulator games are taken from simulated board games rather than strategic and diplomatic environmental games. The game provides the possibility of entering into any situation without physical activity, so that the only activity you need do is to press some keys to fight a dragon. The retiredness does not have meaning and the game continues to the infinity.

### **Lack of Keeping Pre-requirement**

Another feature of games is lack of necessity to primary requirements to attain predefined situation so that we do not need any skill to climb a wall. These games mostly place the player in a situation to experience different states. We can drive in a crowded street without having a car or any skill of driving. Every complex skill can be obtained through learning simple ones which can be possible freely.

### **Choice of Situations**

The chance of changing the situations in a game is another feature so that the player can choose environment, geographical location and even his opponents based on his taste to increase his innovative faculty. Computer games, therefore, realize all the conscious and unconscious expectations of players and provide the experience of situations that are not possible in real world.

Therefore, the number of the audience of computer games increased dramatically and these games turned into most popular entertainments. According to the Entertainment Software Association, surprisingly in 2013, in the U.S.A. averagely five games have been sold through the year in each second ([www.theesa.com](http://www.theesa.com)).

Among all tools and edutainment methods, video games are considered historically as the most critical version as they were interwoven with subjects like thought-free entertainment, increase of social isolation, racial discrimination violence propagation and consumerism. But departure from mere entertainment to educational imprinting has opened a new horizon and this is the side feature of the games. This can be similar to films in which violence and crime are common but are placed in margin. According to Catharsis theory, action films are also useful as they provide the experience of violence (Chiang, Cheng, & Lin, 2008; Mahood, 2008).

To make genres or age classes in cinema confirms this fact that experiencing some films can be useful although there are some violences. Various genres and versions appearing in the games are representative of this trend.

Nowadays, video games can be used as an electronic medium enjoying all the characteristics of educational purposes for users to interact with specific audience. They provide an interactional environment so that the users can develop all their skills. Their efficacy, especially where promotion of a skill is under the vision, is very outstanding,

the examples of which can be seen in genres of management simulation, life simulation and vehicle simulation.

Simple versions of these games are designed to result in determined educational aims. The website of Noble prize foundation uses some games with scientific content to help children understand the discoveries of Noble Nominees (<http://www.nobelprize.org/educational>).

Most advanced games provide extraordinary environments to educate all the details of different political systems in which players are obliged to make specific decisions.

“Game enthusiasts already know that games are great, smart entertainment.” said Mark Simmons, Games Quarterly’s Publisher and the coordinator of National Games Week, “We are encouraging individuals, schools, games stores, organizations, libraries, everyone, to hold a Games Day event during National Games Week, showcasing the fun of game for family and friends” (Simmons, National Games Week).

This can help the children to acquire most essential skills in digital-based life to raise their abilities. New medium of educational games creates the simultaneous possibility of access to educational and entertainment content of environments for tutors in different fields.

Beck and Wade conducted a large-scale study of 2,500 business professionals to determine whether the experience of gaming and growing up surrounded by games, changes attitudes, expectations,

and abilities related to how the video game generation performs in the business world. The results indicate that gamers see the world very differently than do their parents, teachers, or other non-gamers. The structure of the game molds the gamers’ experiences, leading different expectations from learning environments and problem-solving situations. In brief, Beck and Wade identified several ways in which digital natives are unique in their expectations (Beck & Wade, 2004).

In adapting computer games with educational systems, we face the issue of classification and regulation in which the proportion of game-entertaining aspects with scientific content is posed. In fact, far reliance on content and removal from game have decreased the attractiveness of games and turned them in to a software while high focus on the aspect of entertainment has made it a ubiquitous medium with educational applicability.

The Entertainment Software Association states “Video games are no longer only a form of entertainment for children and young adults. The industry, its customers and its technology have vastly advanced in the past three decades. Entertainment software is now one of the fastest growing industries in the U.S. economy. And video games are driving technological and societal advancements that serve gamers and non-gamers alike” ([www.theesa.com](http://www.theesa.com)).

Learning theory is based on three main learning philosophies: cognitive theory, constructivism, and transformative learning. Cognitive theory is more concerned

with understanding the processes of the absorption of information by the brain and transformative learning theory is concerned with the effects of environmental factors on the learning process. However, the cognitive theory is focused on the relations between the experience and the knowledge and the way our experiences through the processes of learning turn into knowledge. In other words, cognitive theory tries to understand how our experiences in the world can affect our knowledge, understanding, and future behaviors.

Earlier learning theory argued that the mind works like a calculating device, something like a digital computer. On this view, humans think and learn by manipulating abstract symbols via logic-like rules (constructivism). Newer work, however, argues that people primarily think and learn through *experiences* (Cognitive theory) they have had, not through abstract calculations and generalizations. People store these experiences in memory—and human long-term memory is now viewed as nearly limitless—and use them to run simulations in their minds to prepare for problem solving in new situations. These simulations help them form hypotheses about how to proceed in the new situation based on the past experiences (Barsalou, 1999).

### **The Wide Applicability of Educational Games**

Tutors and teachers have strongly confirmed the positive effects of entertainment games and use the educational provisions in their

trade and business classes. They embrace the modern technology used in these softwares to transfer their material, to teach life skills and to reinforce positive habits in students in different ages. Gee concludes that: video games intermix instruction and demonstration, a more effective learning technique than the “memorize-and-regurgitate style” found in most classrooms (Gee, 2003).

The National Education Association (NEA) serves as a guiding force for instructors, cataloging information that prepares teachers for incorporating video games into the classroom. In the official website of this association, it is announced that Electronic Arts’ *SimCity* is among the NEA’s recommendations. The building game, which has shown to improve students’ problem-solving and analytical skills, plays an important role in many “gaming schools.”

The *GXB Learning Series* is another video game line gaining popularity as an educational resource. Designed by teachers for both school and home use, the game offers content drawn straight from U.S. state and national education standards.

Schools across the country are also incorporating interactive video games, such as Konami’s *Dance Dance Revolution* and Nintendo’s *Wii Fit* into gym classes. “Exergames” such as these are attractive to young students and provide new resources for financially strapped physical education departments.

More than 200 American colleges, universities and technical schools, including New York University, the Art Institute of

Seattle and Marist College, offer programs and courses in videogame design and development. Carnegie Mellon University and the Georgia Institute of Technology offer master's degrees in game development, while the University of Southern California offers a graduate degree in interactive media and an undergraduate degree in video game development (NEA, [www.theesa.com](http://www.theesa.com)).

Most of the games are well designed that they can fulfill the requirements of all age groups to attract them toward a global competition. This helps to spread the games in the family so that all members can involve the games and reinforce mutual relationships.

According to a 2017 report by the Entertainment Software Association almost two-thirds of American households play video games: gamers age 18 years or older represent 72% of the video game-playing population and the average gamer is 35-years-old. Families are playing video games together as well, the report finds. Sixty-seven percent of parents play video games with their children at least once a week.

The outstanding results of computer games have been observed not only in schools and universities but also in companies and firms to increase occupational skills.

According to a study by the Entertainment Software Association, 70% of major employers utilize interactive software and games to train employees. One entertainment software company, Games2Train, has developed employee training games for American Express, Bank

of America, IBM, JP Morgan Chase, Nokia, and Pfizer. In addition, Canon uses a video game in which repairmen must drag and drop parts into the right spot on a copier to train technicians. IBM has also produced *Innov8*, a free, interactive game that teaches graduate students business and technology skills.

Video games and their technologies are also being used as a vehicle to reach and educate the public. In response to the recent financial crisis, the United States Treasury Department launched *Bad Credit Hotel*, an online game that teaches consumers the basics of good credit. The United Nations World Food Programme, meanwhile, created the *Food Force* video game to educate children about world hunger. Allstate Insurance is now offering a video game to its drivers to improve their driving skills (NEA, [www.theesa.com](http://www.theesa.com)).

Professor Zach Rosenthal from Duke University devised a wider game to accelerate the treatment of the addicted in which the addicted person can create a world full of joy and delight such that he can increase his patience and power to control attraction toward the drug ([abcnews.go.com](http://abcnews.go.com)).

The famous psychologist Stokes and Lappin (2010) suggest specific computer games entitled "Brain Video Games" to increase strength and durability of brain to tolerate long term pains for patients with chronic migraine. The results show that 70% of patients have heal successful treatment.

The report published in the magazine "Archives of Surgery" shows that the

computer games are highly useful for surgeons and laparoscopic surgeons can especially reduce their errors and increase their mastery (Curet, 2007).

### **The Educational Capacities of Games**

There have been a lot of debates about the educational capacities of games and the abilities the players achieve. Today, most authorities try to transfer social skills to players through games, which are possibly done without danger and high cost under careful supervision. Pilot experiencing in a completely virtual environment is a common example, which is used in flight institution professionally. The efficacy of the games, however, is different and the nature of learning can be promoted in three aspects increasing awareness through game content, self-learning, and growing skills.

### **Increasing Awareness through Game Content**

Most games are of specific content, educational or scientific, designed to satisfy a special need such as teaching a subject or directing the users so that the prerequisite to continue the game is to master the scientific content along with using techniques dominant in the game. For example, in designing political and official system of a country in a strategic game or social simulation, we need to study the game guide and to have scientific mastery on available systems. But a game related to dinosaurs era is an indirect teaching of history. Directness or indirectness of a

game refers to entertainment factor such that dominancy of either can determine the types of the game.

These types of games are known as edutainment games commonly produced by the order of a firm or an organization to offer specific content. The games available on the noble prize site or most historical and geographical games are included in edutainment games. These games are used to epitomize the social principles and rules; making a driving system of rules in a country and to teach it to all drivers. On the other hand, there are some negative effects especially in military tied or violating the realm of a country by changing the name of the city or islands.

### **Self-learning**

Self-learning, known as an outcome of simulated processes from game content, is its most remarkable result of educational games on technological advancement in recent decades. Today, educational games are regarded as the inseparable tools of virtual classes for which there is no need of supervisor. Self-learning can be viewed as the process of attaining knowledge and individual abilities consciously through implementing the game. Simulating games of driving, management are enumerated in this class. The games of recognizing and classifying figures and colors, scientific puzzles and counting games, designed for children, are all so in this category. In a higher level, games designed to teach vocational or professional skill, such as

pilot or tank driver, are based on the same features. Getting more knowledge or being updated is the general aim of these games.

### **Raising the Abilities**

Video games can promote personal abilities during the game in different aspects. There are two different skills, visible and of invisible in players which must be paid attention to. Visible skills are those which the players will see the growth after the games vividly such as chess games or card games after which the players will feel some mastery and will have fewer mistakes for the next round.

In fact, player's skills would increase in driving, chess, banking, and accounting through these games. Most games like educational games designed to increase elementary student's skill in multiplication and division are in this class.

Invisible skills are those whose promotion the player doesn't have any knowledge about and may also neglect them. These are widely spread, usually dependent on indirect abilities of mind, known or mental sports.

These skills are defined in psychology of mind and compared through scientific measurements and tests. They are distinctive from other main factors of games such as content such as a violent game can increase mental abilities such as reaction speed, reasoning or concentration.

### **Games and Growth of Mental Skills**

There has appeared a great literature about

the effect of games on mental abilities of player by; yet, there is not a comprehensive list of these abilities.

The main reason, perhaps, is that the researchers have focused on some features and neglected others, depending on their approach to education. As a rule, we have followed an inductive method and enumerated some abilities as: conversation skill, negotiating skill, thinking differently, eye and hand coordination, concentration, problem-solving skill, memory, modeling ability, literature and speech conversation (encouraging players to define the events of the game, increasing audio perception of other persons' views, and using language to animate the events and thoughts in the game), promotion of mathematical skills, creativity, group and social skills, attending power, relation power, artistic creation skill, decision making, computer skills, durability, compatibility of auditory and visual senses, communicative coordination (participation in group discussion) numerical skills (computational skills, understanding numerical concepts) cooperation with others (developing social abilities) the ability to solve the problem (recognition of problem), planning, observing and supervising the affair progress, revising the solutions, memory reinforcement, positive individualism in learning (self-esteem), sense of leadership and control, perceiving three-dimensional spaces, and cognitive abilities.

Undoubtedly, this list of mental abilities reinforced by educational entertainment games will be longer.

## METHODOLOGY

This research is an evaluation analysis based on a structured questionnaire, in which a small selected group of analyzers are asked to report their evaluation of a target population according to the specified group of evaluation factors.

The most important issue in this research was to find the appropriate evaluating factors to appraise the research. The review of present literature showed that there was no clear-cut list of factors to discuss about, therefore we relied on the most repeated mental skills in the available literature, specifically in regard to learning theory; yet there was no comprehensive framework to base on. The result was a list of 30 mental skills that were relative to video games as well, including leadership and control, perception of 3D spaces, action speed, cognitive abilities, inductive reasoning, speedy mind information processing, thinking simultaneously, crisis management, statistical understanding, English learning, information management, visual understanding, deductive reasoning, thinking differently, eye and hand coordination, concentration, problem-solving skill, memory reinforcement, modeling ability, conversation skill, mathematical skills, creativity, group and social skills, decision making, computer skills, control over computer's mouse and keyboard, durability, compatibility of auditory and visual senses, numerical skills, and self-learning.

Regarding the target population of the study, the main criteria for the selection

of the games were their free and easy availability on the web and their belonging to the group of hobby games, in that they were easy to download and run by any age group and in any situation. In order to give a more natural sense to the research, no list of games were prepared before the analysis process, that is, the study did not have a specified list of target population. For this purpose, any of the five members of the analyzing group (male and female students of sociology at the University of Tehran aged between 20 and 28 years) was asked to find and play 20 games they desired (considering their free and easy availability on the web) in any situation they preferred in a period of 2 weeks. After 2 weeks, the list of 20 games played by each analyzer was handed to another member of the group to play in the next 2 weeks, and this process continued until every five members of the group played every game one time. So that, the population was decided during the analysis by any one of the analyzers in the first 2 weeks and was tested by all other analyzers in the following weeks. This method intertwined the preferences and analyses of different analyzers and therefore helped to have a more acceptable population and analysis process.

A binary evaluative method was used for the evaluation of the games and each analyzer had to decide if any played game did or did not have any one of the 30 specified mental skills. For this purpose, the analyzers were asked to fill out Table 1 instantly after playing each game to specify which properties were found in that game.

At the end of the tenth week, the results of the tables of the five analyzers were summed together, and the mental skills that had been identified for a game at least by three members were decided as the mental skill presented by that game.

## RESULTS

As it can be seen, the existence or nonexistence of each mental skill in any game is reflected in Table 1. A quick glance at this table shows where the filled (black) cells of the table are concentrated more than is which mental skills are provided more by the examined 10 games. Comparing the number of skills presented by each game reveals that 6) Killer Sudoku, 35) Dons-Pyramid, 22) Gude balls, 36) X Triple, and 47) Farm Frenzy with respectively 19, 19, 18, 18, and 18 number of filled cells (skills) present the highest number of skills. A deeper look into this table shows that new games like Elements 4, Night Shift Legacy and Atlantis Sky Patrol produced in terms of abilities and capacities of new media are in a close competition with traditional games such as Dons-Pyramid and Killer Sudoku know long for their mind reinforcing capacities. This can be attributed to the capacity of multimedia in demonstrating simultaneous aspects. Comparing other data on the table shows correlations among features such as the extent of applying skills along with their accessibility.

This also brought the possibility of comparing the features with each other. For example, it can be determined what percentage of games use educational skills.

Table 2, as a derivation of Table 1, presents the percentage of each mental skill within the whole collection of 100 examined games. As the number of games is 100, the percentage respective to any skill is in fact the sum of the number of games that presented that specific skill. This table provides an appropriate chance to compare the percentages of availability of all 30 specified skills among all of the game. As observed, “ability to think simultaneously” with 93%, “concentration” with 92%, and “inductive reasoning” with 86% have allocated the highest ranks and “computer skills” *\_unexpectedly\_* with 1%, “compatibility of auditory and visual senses” with 2%, and “conversation skills” with 3% have allocated the lowest ranks.

Computer games are not separated tools from daily life and provide opportunity for human beings to realize their ideals, potentiality and skills in wide spans. As an integrated theme with technological life, video games have helped humans to find new solutions for their problems and let them think about unforeseen events going to happen.

Investigating video and computer games, usually low volume and most popular, showed that these games were full of grounds so that the players could use them to fulfill their mental abilities.

These games had subsidiary effects on some mentality and skills of players in that the players raised their skills unconsciously, such as eye and hand coordination, concentration. This research showed that strategic games use high-quality performance

Table 1  
 Comparison of mental skills in edutainment games

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
3D Logic																														
Alphabet Jungle																														
Body Parts																														
30 Sudoku																														
Royal Sudoku																														
Killer Sudoku																														
Line																														
Rings of the Magi																														
Bonus Game of the Magi																														
MVP Checkers																														
MVP Mancala																														
MVP Wordsearch																														
Color Reactor																														
Project 156																														
Dying Breed																														
Limited Space																														
Force A Roll																														
Globe Navigator																														
Time Trip																														
Crystal Caverns																														
Grid																														
Guide Balls																														
Patchworkz!																														
Pharaoh's Pairs																														
Tornado Gold																														
RSP Showdown																														
Black Dragon																														
Battle Ship																														
Fungli																														
Cake Shop																														





Table 2

*Comparison of the quantities of abilities in all 100 games in percent.*

%	Ability	#
70	leadership and control	1
11	perceiving 3D spaces	2
75	action speed	3
35	cognitive abilities	4
85	inductive reasoning	5
47	speedy mind information processing	6
93	thinking simultaneously	7
60	crisis management	8
40	statistical understanding	9
24	English learning	10
23	information management	11
36	visual understanding	12
24	deductive reasoning	13
27	thinking differently	14
44	eye and hand coordination	15
92	concentration	16
62	problem-solving skill	17
58	memory reinforcement	18
62	modelling ability	19
3	conversation skill	20
12	mathematical skills	21
32	creativity	22
60	group and social skills	23
22	decision making	24
1	computer skills	25
29	control over computer's mouse and keyboard	26
65	durability	27
2	compatibility of auditory and visual senses	28
29	self-learning	30

in mental and behavioral aspects which indirectly increased the players' capacity. It also showed that the fusion of ancient games and digital technologies can bridge the previously separate arenas of learning theory and entertainment under the title of edutainment. Therefore, learning theory could be used as a steering wheel in order to deepen the merely entertaining levels of digital games and enter learning aspects, implicitly or explicitly, into them.

There arises, the last but not the least, problem of usability of these games. The world idea is searching for a logical solution to direct the computer games but it cannot deny their existence. Any way digital technologies are proceeding very fast and introducing new dimensions of digital life every day, so that it does not seem so far the day that the digital and real aspects of a life would not be separable any more. Then a life in which everything would be virtual and not so different from a game.

## CONCLUSION

This study was only a small attempt in order to understand the learning aspects of a group of easy-to-access low-budget games that were freely available on the internet to play. We hope that it persuades further studies to try to evaluate a wider variety of games including high-budget strategic ones, with more variant evaluating populations from different ages, genders, and education levels. Of course, the more complex the games become and the more intertwined their different entertainment and educational aspects become, the deeper

and the more accurate studies are required. Such studies generally play an important role from two related points of view: game producing companies will pay more attention to the educational aspects of the games they produce, and educational systems will make more use of games in their educational programs.

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## **Interest in Teaching: How Teacher Education Affects It**

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### **ABSTRACT**

Teaching Practice is a course in which student teachers were asked to teach real students in schools. At an English language education program, this special course requires various activities, one of which is teaching English in real classes to apply English teaching skills. As a prerequisite of enrolling in Teaching Practice, the student teachers must pass Micro Teaching, a course in which student teachers teach English to their peers. Both Micro Teaching and Teaching Practice generally aim at putting theory into practice, providing valuable experience for them. This paper is a report of a study on the interest in teaching experienced by student teachers in Indonesia. The study as a part of a bigger research project, which was related to perspectives on teaching practice, reveals that to a certain extent teaching interest is influenced by an on-campus teaching demonstration and real teaching in schools. It somewhat exposes that most student teachers are encouraged by the practical components of a teacher education program. Actions should then be taken to advance the teaching interest of the 'minority' especially after Teaching Practice. Otherwise, their interest may be destructively influential in spite of the training efforts provided by the teacher education program.

*Keywords:* Micro teaching, student teachers, teacher cognition, teaching practice

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### **INTRODUCTION**

A teacher education program is not only theory-oriented but also practice-oriented (Yusuf, 2006 as cited in Dweikat, n.d.). Both the theoretical and practical knowledge are indispensable. Student teachers in the education program are provided with the

knowledge and skills necessary for them to acquire the basic teaching skills.

Universally, the pedagogic practical knowledge is obtained from microteaching and teaching practice. Micro teaching is a course in which students are given opportunities to teach their friends in the form of simulations – also termed teaching demonstrations. The Micro Teaching classroom is the imitation of the real one in schools. It is the place for students to prepare themselves on campus so as to get knowledge and skills before they go to a real teaching field. Meanwhile, Teaching Practice is a course in which students are provided chances to teach real students in schools. It has turned out to be a fundamental component of most teacher education programs (Lambert, 1992, MacNaughton & Clyde, 1990, Posner, 1993, and Tisher, 1987 as cited in Perry, 1997). As Teaching Practice is a course in which students are given opportunities to teach real students in schools, it can be viewed as one of the most essential means of assisting student teachers to become real teachers. Real classroom experience can, as pointed out by Wright (2010), result in a transformative effect on student teachers' beliefs.

Both Micro Teaching and Teaching Practice by and large aim at putting theory into practice such as implementing basic teaching skills, testing knowledge of the subject matter, discovering teaching strengths and weaknesses and developing a core set of pedagogic values to which a professionally competent teacher adheres.

Implied from the listed aims is the valuable experience that any teacher education program should provide for student teachers. With the experiences of being a teacher, is student teachers' interest in or preference for teaching boosted?

This paper is a report of a small-scale study on the interest in teaching experienced by 31 student teachers at the English Department of a university in Surabaya, Indonesia. The study is in fact a part of a bigger research project related to student teachers' perspectives on their teaching practice. This study is triggered by the chief issue of revealing the extent to which interest in teaching is influenced by on-campus teaching demonstrations and real teaching in schools. In brief, the focus lies on the research question of whether students are encouraged or discouraged by the practical components of a teacher education program. Prior to revealing the main issue, the paper presents the brief discussion on teacher cognition, Micro Teaching, and Teaching Practice.

### **Teacher Cognition**

This study relates to teacher cognition for it is concerned with understanding what teachers think, know and believe (Borg, 2003; 2009). The main concern of this study, therefore, lies with a small dimension of teacher cognition – what student teachers think about their interest in teaching.

Interests which psychologists classify as one of the traits in describing personality are, as Roe and Siegelman (1964) point out,

a key factor in vocational choice. In this paper, interests will be used to mean the degree of attraction toward any activity – following the definition of Coleman (1960). This definition is then similar to the term ‘intention’ coined by Allport (1961) in Roe and Siegelman (1964) who considered it as a form of motivation essential for the understanding of personality. Once an intention was formed, a goal for future action was established, as Roe and Siegelman asserted.

There are various factors influencing student teachers’ cognition – their thinking, knowing and believing. Teacher cognition is affected by four variables and there are some kinds of interdependence among the variables of schooling, professional coursework, teacher cognition, contextual factors and classroom practice (Borg, 1997 in Borg, 2003). Similarly it was pointed out that some prominent factors influencing student teachers’ cognitions include the learning experiences which teacher education program provides. Teacher cognition also includes the pedagogies that are modeled, the relationships between all participants, and the emotional conditions under which teacher education program is carried out (Wright, 2010).

It is then obvious that teachers’ instructional techniques are inspired by numerous factors. However the relation is not unidirectional; it is interactive. Citing his previous idea, Van den Branden (2009) asserted, ‘Teacher cognitions not only feed and inspire actions in the classroom, but

actions taken in the classroom also feed perception: each will influence the other as the teacher works from day to day (Van den Branden, 2006).’

### **Micro Teaching and Teaching Practice**

Both Micro Teaching and Teaching Practice have their merits. Manis (1973, as cited in Dweikat, n. d.) affirmed that microteaching implied a condensed and simplified teaching situation and provided teacher candidates with opportunities to systematically study and practice specific teaching behaviors in a simulated environment. The simulation consists of the following four basic phases: (1) studying a specific teaching skill, (2) applying the skill, (3) receiving information feedback from a supervisor and peers, and (4) using information from the feedback phase to re-plan and re-teach the lesson.

Mergler and Tangen’s (2010) study reviewed in Dweikat (n.d) examined pre-service teachers’ efficacy in relation to the utilisation of micro teaching. Their qualitative data revealed that pre-service teachers entered teaching in order to positively impact teaching. Their study also indicated the positive impact microteaching had on developing teacher identity.

Micro Teaching whose objective is creating classroom discourse by organizing activities and depicting micro skills (Universitas Katolik Widya Mandala Surabaya, 2011), is a 2-credit course in which students are given chances to teach English to their peers based on the Lesson Plans prepared in advance. The simulation is

destined for the imitation of the real teaching in schools. At the English Department of the target university, Teaching Practice is a 4-credit-course to provide students who have passed their on-campus Micro Teaching and some other required courses so that they go on having teaching experience in a school field, outside campus. Each trainee is assisted by a supervising teacher (other terms used are 'school-based' teacher, 'resident' teacher, or 'cooperating' teacher (Tamah, 2013).

## METHOD

The writer made use of a self-developed questionnaire in which four items were formulated to obtain the information about student teachers' teaching interest attributable to Teaching Practice and Micro Teaching. The four items examined what the student teachers thought about their teaching interest before and after Teaching Practice and their interest before and after Micro Teaching. The responses were collected on a 4-point Likert scale: 1 for 'strongly disagree'; 2 'disagree'; 3 'agree'; and 4 'strongly agree'. Open ended questions – under the entry of 'Comment' – were also used to get more information about why a certain answer was chosen. One item is exemplified below:

Before I did my PPL, I like teaching 1/  
2/ 3/ 4 (1= strongly disagree; 2 = disagree;  
3 = agree; 4 = strongly agree)

Comments: \_\_\_\_\_  
\_\_\_\_\_

Those four items were in fact inserted in a set of questionnaires which became the instrument of a larger research project related to student teachers' perspectives on their teaching practice (Tamah, 2012). Having been validated by expert judgment and piloted to four students of a lower semester, the questionnaire was at last distributed with no revision to 38 target students – the sample of this study – who had programmed Teaching Practice. The students were requested to come to campus, and a transport fee was provided for each.

However only 32 students came. Among the returned questionnaires, one questionnaire was dropped (refer to Tamah, 2012 for the detailed reasons). Therefore the data source in this study was 31 questionnaires. They were obtained from 5, 11 and 15 student teachers who had their Teaching Practice in elementary, junior high, and senior high schools respectively. The answers elicited from the questionnaire were obtained about two months after the Teaching Program was over, and about eight months after the Micro Teaching was taken by the student teachers.

The obtained data were analysed by (1) tallying the answers of the closed questions and counting the percentage, and (2) summarizing the answers of the open questions and counting the percentage. The data were then classified and interpreted to answer some sub-topics like the teaching interest itself, the extent the interest is affected, the consistency in interest change – which lead to the main focus of the study.

## RESULTS AND DISCUSSION

### Interest in Teaching Before and After Teaching Practice

From Table 1 it is seen that 45.2% student teachers chose 'strongly disagree' and 'disagree' to the statement *Before I did my PPL, I like teaching*. After taking Teaching Practice, the percentage of 'dislike' answer became smaller (35.5% to be exact). The teaching interest was slightly increased (below 10%; 64.5%-54.8%) (See Tables 1 and 2).

### Interest in Teaching Before and After Micro Teaching

It is indicated in Table 3 that 48.4% student teachers chose 'strongly disagree' and 'disagree' to the statement *Before I did my PPL, I like teaching*. Similar to the finding about teaching interest before Teaching Practice, almost 50% student teachers did have interest in teaching before they took Micro Teaching. After carrying out Micro Teaching, the percentage of 'dislike' answer became smaller (35.5%). The teaching interest was therefore a bit increased.

### Teaching Interest Affected by the Practical Components of Teacher Education

Table 4 reveals that there was an increase of teaching interest both in Teaching Practice and Micro Teaching aspects. An increased interest because of Teaching Practice amounted to 9.7% while the one because of Micro Teaching amounted to 12.9%. This indicates that after the student teachers entered the actual world of teaching, the interest increase was not as high as the one

with regard to on-campus Micro Teaching.

On average, the percentage increase amounted to 11.3%. Implied is that student teachers' interest in teaching was affected positively as there was an increase in interest although it was only slightly above 11%. After taking the practical components of Teacher Education, the student teachers became more interested in teaching.

When the mean rating on a 4-point scale was measured further, the mean scores of 2.52 before Teaching Practice and 2.84 after Teaching Practice were obtained. The mean scores of 2.42 (before Micro Teaching) and 2.87 (after Micro Teaching) were also obtained. Correspondingly, the findings on the rating itself showed that there was an interest change. Both show an increasing interest. An increase of 0.32 point was indicated as the influence of Teaching Practice on teaching interest, meanwhile an increase of 0.45 point was indicated as the one of Micro Teaching (Table 5).

Further statistical analysis was performed to identify if the increase was significant or not. Initially data normality was ensured. Using the W/S normality test (Kanji, 1993 in <http://webpace.ship.edu/pgmarr/Geo441/Examples/Normality%20Tests.pdf>), it was found that the data (before Teaching Practice) were not normally distributed, but that the data (after Teaching Practice) were. Meanwhile both the data (before and after Micro Teaching) were normally distributed. The analysis of significance was then continued by t-test of pair samples (dependent samples t-test) with regard to Micro Teaching rating, and by the

Table 1

*Teaching interest before taking teaching practice*

Before I did my PPL, I like teaching	A (n=5)	B (n=11)	C (n=15)	A+B+C (n=31)		A+B+C (n=31)
Strongly Disagree	0%	0%	2 (13.3%)	2 (6.5%)	Dislike	45.2%
Disagree	0%	5 (45.5%)	7 (46.7%)	12 (38.7%)		
Agree	5 (100%)	6 (54.5%)	5 (33.3%)	16 (51.6%)	Like	54.8%
Strongly Agree	0%	0%	6.7%	1 (3.2%)		
Total	100%	100%	100%	100%		100%

Note: A: At elementary school; B: At Junior High School; C: At Senior High School; Av.: Average.

Table 2

*Teaching interest after taking teaching practice*

After I did my PPL, I like teaching	A (n=5)	B (n=11)	C (n=15)	A+B+C (n=31)		A+B+C (n=31)
Strongly Disagree	0%	0%	2 (13.3%)	2 (6,5%)	Dislike	35.5%
Disagree	1 (20%)	2 (18.2%)	6 (40%)	9 (29%)		
Agree	2 (40%)	6 (54.5%)	4 (26.7%)	12 (38,7%)	Like	64.5%
Strongly Agree	2 (40%)	3 (27.3%)	3 (20%)	8 (25,8%)		
Total	100%	100%	100%	100%		100%

Note: A: At elementary school; B: At Junior High School; C: At Senior High School; Av.: Average.

Table 3

*Interest in teaching before and after on-campus micro teaching*

"I like teaching"	Before (n=31)	After (n=31)		Before (n=31)	After (n=31)
Strongly Disagree	5 (16.1%)	2 (6.5%)	Dislike	48.4%	35.5%
Disagree	10 (32.3%)	9 (29%)			
Agree	14 (45.2%)	15 (48.4%)	Like	51.6%	64.5%
Strongly Agree	2 (6.5%)	5 (16.1%)			
Total	100%	100%		100%	100%

Table 4

*Interest in teaching due to teaching practice and on-campus micro teaching (before and after)*

	Teaching Practice		Micro Teaching		Teaching Practice + Micro Teaching	
	Before (n=31)	After (n=31)	Before (n=31)	After (n=31)	Before	After
“I don’t like teaching”	45.2%	35.5%	48.4%	35.5%	46.8%	35.5%
“I like teaching”	54.8%	64.5%	51.6%	64.5%	53.2%	64.5%
Result	9.7% increase of interest		12.9% increase of interest		11.3% increase of interest	

Table 5

*Significance testing on change in teaching interest*

	Mean Rating (4-point scale)		Increase	Test of Significance		Increase Significance
	Before	After		t-test	Mann-Whitney U-Test	
TP	2.52	2.84	0.32	no	yes	NO
MT	2.42	2.87	0.45	yes	no	YES

Note: TP: Teaching Practice; MT: On-campus Micro Teaching

Mann-Whitney U-Test, the non-parametric test with regard to Teaching Practice because the available rating scale data did not meet the requirements to conduct the t-test.

From the Mann-Whitney U-Test Calculator (available at [tests/mannwhitney/Default.aspx](http://tests/mannwhitney/Default.aspx)), the Z-Score (1.42) was obtained. The p-value was 0.16 indicating that the result was not significant at  $p \leq 0.05$ . The U-value was 379. The distribution was approximately normal. Therefore, the Z-value could be used. After teaching practice, there was no statistically significant difference in student teachers’ interest. This study seems to indicate that the practical

components of a teacher education program did not affect their interest in teaching. This finding is similar to a certain extent to the finding of Yilmaz and Cavas (2008): completing teaching practice course and additional educational courses were not a significant factor on student teachers’ cognition in general – on teaching interest (this study) and on pre-service teachers’ self-efficacy beliefs (Yilmaz & Cavas, 2008).

From the t-test calculator (available at <http://www.socscistatistics.com/tests/ttestdependent/Default.aspx>) the value of  $t$  (3.48) was obtained. The value of  $p$  was

0.000782. The result was significant at  $p \leq 0.05$ . The increase was indeed significant. The influence of Micro Teaching was significant in increasing the teaching interest (Table 5).

It is naturally expected that in teacher education there will be a positive change for interest in teaching. The analysis to date has indicated so. The analysis on the data is then continued to see further how varied this particular issue is (see Table 6 below).

As revealed in Table 6, there were 11 incidents of changes in teaching interest. The smallest percentage (1.6%) occurred

for the interest change as shown in lines 3 and 4. The Likert scales changed from 1 to 3 and also from 2 to 1. Meanwhile the biggest percentage (29%) appeared in line 9. This particular finding shows that interest was steady from 3 to 3 ('agree' to 'agree').

When the analysis was continued to see further how consistent the change of interest in teaching was, it is found – as seen in Table 8 – that some student teachers chose 'strongly disagree' (4.8%), 'disagree' (6.5%), 'agree' (29%), and 'strongly agree' (4.8%) designating that their interest did not change. Therefore,

Table 6

*Change in teaching interest due to teaching practice and micro teaching*

	Interest Change	Teaching Practice		Micro Teaching		Teaching Practice + Micro Teaching	
		Count	%	Count	%	Count	%
1	1 to 1 ('strongly disagree' to 'strongly disagree')	1	3.2%	2	6.5%	3	4.8%
2	1 to 2 ('strongly disagree' to 'disagree')	1	3.2%	2	6.5%	3	4.8%
3	1 to 3 ('strongly disagree' to 'agree')	-	-	1	3.2%	1	1.6%
4	2 to 1 ('disagree' to 'strongly disagree')	1	3.2%	-	-	1	1.6%
5	2 to 2 ('disagree' to 'disagree')	2	6.5%	2	6.5%	4	6.5%

Table 6 (Continue)

	Interest Change	Teaching Practice		Micro Teaching		Teaching Practice + Micro Teaching	
		Count	%	Count	%	Count	%
6	2 to 3 (‘disagree’ to ‘agree’)	6	19.4%	6	19.4%	12	19.4%
7	2 to 4 (‘disagree’ to ‘ strongly agree’)	3	9.7%	2	6.5%	5	8.1%
8	3 to 2 (‘agree’ to ‘disagree’)	6	19.4%	1	3.2%	7	11.3%
9	3 to 3 (‘agree’ to ‘agree’)	6	19.4%	12	38.7%	18	29%
10	3 to 4 (‘agree’ to ‘ strongly agree’)	4	12.9%	1	3.2%	5	8.1%
11	4 to 4 (‘strongly agree’ to ‘strongly agree’)	1	3.2%	2	6.5%	3	4.8%
Total		31	100%	31	100%	62	100%

the interest remained unchanged during the course of the education program (this is labeled as ‘unmarked’).

Some students implicitly indicated that though they experienced Teaching Practice and Micro Teaching, they still had no interest or did not like teaching (as shown in the Likert scale change from 1 to 1, and from 2 to 2. Some others (29% + 4,8% amounting to almost 34%) contended that they were still interested in teaching after joining Teaching Practice and Micro Teaching (as shown in the Likert scale change from 3 to 3 and from 4 to 4 – revealing that Teaching Practice and Micro Teaching did not decrease their teaching interest nor they increased it.

A closer look (see Table 7 at the marked interest change) reveals there were two incidents of interest change. One indicates boosted interest; the other, a surprisingly declined interest. As the decreased interest amounted to 23.5%, it is arguably asserted that much more positive change in teaching interest occurred. There were much higher percentages of the increased interest; the data revealed that the increased interest (76.5%) roughly tripled the decreased interest (23.5%).

Moreover it is interestingly found that among those having increased interest there were three sorts of substantial change in dichotomy: (1) ‘Dislike’ to ‘Dislike’, (2) ‘Dislike’ to ‘Like’, and (3) ‘Like’ to

Table 7

*Consistency in interest change*

	Interest Change	Count	%	%
Unmarked	1 to 1 ('strongly disagree' to 'strongly disagree')	3	4.8%	
	2 to 2 ('disagree' to 'disagree')	4	6.5%	45.1%
	3 to 3 ('agree' to 'agree')	18	29%	
	4 to 4 ('strongly agree' to 'strongly agree')	3	4.8%	
Marked	1 to 2 ('strongly disagree' to 'disagree')	3	4.8%	
	1 to 3 ('strongly disagree' to 'agree')	1	1.6%	54.9%
	2 to 1 ('disagree' to 'strongly disagree')	1	1.6%	
	2 to 3 ('disagree' to 'agree')	12	19.4%	
	2 to 4 ('disagree' to 'strongly agree')	5	8.1%	
	3 to 2 ('agree' to 'disagree')	7	11.3%	
	3 to 4 ('agree' to 'strongly agree')	5	8.1%	
Total		62	100%	100%

Table 8

*Variation in marked change of teaching interest*

	Interest Change	Count	%	%
increased	1 to 2 ('strongly disagree' to 'disagree')	3	8.8%	
increased	1 to 3 ('strongly disagree' to 'agree')	1	2.9%	
increased	2 to 3 ('disagree' to 'agree')	12	35.3%	
increased	2 to 4 ('disagree' to 'strongly agree')	5	14.7%	76.5%
increased	3 to 4 ('agree' to 'strongly agree')	5	14.7%	
decreased	2 to 1 ('disagree' to 'strongly disagree')	1	2.9%	23.5%
decreased	3 to 2 ('agree' to 'disagree')	7	20.6%	
Total		34	100%	100%

'Like'. The percentage for interest change from 'dislike' to 'like' zones – amounting to slightly below 53% (Table 9) was the greatest. The 8.8% category of 'dislike' to 'dislike' showed that although some student teachers did not like teaching before experiencing Teaching Practice and Micro Teaching, their interests were changed positively as their initial answer 'strongly disagree' became 'disagree' after they experienced Teaching Practice and Micro Teaching. Their strong dislike had lessened to a certain extent.

The 14.7% category of 'like' to 'like' indicated that some student teachers stayed in the 'comfort' zone. Both before and after Teaching Practice and Micro Teaching they liked teaching. However, their interest level was increased as their initial answer 'agree' became 'strongly agree'. Their teaching interest had been boosted to a certain extent.

Interestingly – or sadly – enough, it is also indicated in Table 9 that among those having decreased interest, one sort of change i.e. from 'like' to 'dislike' zones appeared – amounting to slightly below 21%. Their interests were changed negatively as their answer shifted from 'agree' to 'disagree'. The other sort of decreased change was also found from 'dislike' to 'dislike' zones. One student teacher (2.9%) opted 'strongly disagree' – indicating that his/her initial level of dislike ('disagree') had been worsened to a certain extent. This finding might indicate the complexity of teacher education.

Overall, this particular finding might indicate a sign of success achieved by a

Teacher Education program. One possible factor includes the experience itself. Having the experience to carry out the teaching in Teaching Practice and/or Micro Teaching seems to make the interest grow. A particular comment obtained from a student teacher (Respondent 23) whose interest is enhanced – from 'disagree' to 'strongly agree', and from 'agree' to 'strongly agree' – states “*Before I did my PPL I like teaching a little because I had no any experience in teaching. I like teaching a little because I had no any experience in teaching except in TEFL and TEYL. After I did my PPL I like teaching very much because I could deliver the techniques of teaching that I had got in TEFL with the real school atmosphere ... I could deliver the methods in teaching that I had got in TEFL.*”

The comment implies that what counts is the opportunity provided to experience being a teacher. An Indonesian saying 'You cannot like what you do not know or experience' looks to apply here. Furthermore the opportunity given is positively perceived by student teachers. Tamah (2012) found that most student teachers argued that the most useful experience they got from Teaching Practice in real classes was handling real students, handling big classes (as compared to small ones in their on-campus teaching demonstration), and interacting with real students. Some comments worth-revealing include: (Tamah, 2012)

*Handle some lazy students. It's hard to motivate them especially the students of grade XII [R. 10].*

*By doing PPL I could learn many things*

Table 9

*Marked change of teaching interest*

	Interest Change	Count	%	%
increased	1 to 2 ('strongly disagree' to 'disagree')	3	8.8%	
increased	1 to 3 ('strongly disagree' to 'agree')	1	2.9%	
increased	2 to 3 ('disagree' to 'agree')	12	35.3%	
increased	2 to 4 ('disagree' to 'strongly agree')	5	14.7%	76.5%
increased	3 to 4 ('agree' to 'strongly agree')	5	14.7%	
decreased	2 to 1 ('disagree' to 'strongly disagree')	1	2.9%	23.5%
decreased	3 to 2 ('agree' to 'disagree')	7	20.6%	
Total		34	100%	100%

*to become a teacher later. Especially the new things that I got from PPL helped me to prepare becoming a [real] teacher [R.31].*

This present study has reported the mean score of over 2 points (on a 4-point scale) for the level of interest: 2.52 – 2.84 (for the one before and after Teaching Practice) and 2.42 – 2.87 (for the one before and after Micro Teaching). This might indicate that near the end of their study at the teacher education program most students have possessed quite a moderate level of interest in teaching. Some comments worth revealing are *“I really want to be a teacher. I had a private student at that time and it helped me a lot”, “I like teaching but I am not confident enough to teach real students.”* However, one respondent wrote *“I did not enter the department because I like teaching, but because I like English.”* He/she was the one consistently rating the

level of interest in the zone of ‘dislike’ (‘1 to 1’ before and after both Teaching Practice and Micro Teaching).

## CONCLUSIONS

This study is an attempt to understand student teachers’ interest in teaching. Having reviewed the underlying theories of teacher cognition, Micro Teaching and Teaching Practice, the paper presents its main focus – teaching interest based on a small-scale study.

Despite the limitation of the study which engages only four students for instrument try out and only a small size sample, this study has revealed some findings indicating the complexity of teacher education. We may believe one thing, and at the same time we may also believe something else. A belief system can be ‘internally inconsistent’ (Birello, 2012).

It is then essential to increase the level of teaching interest to make a teacher education program achieve a greater success. The greater the interest is; the greater the chance is to drive student teachers to really move on to the expectation from ‘student teachers’ to ‘teachers’. This is in line with what is argued by Roe and Siegelman (1964): interest is a key factor in vocational choice.

The decrease of teaching interest might be due to several factors. The respondents’ comments “*Being a teacher requires not only how to teach well, but also dealing with administration and other stuffs, and I think it is burdensome*”, and “*The real teaching is very complicated. I had to complete many administrative stuffs and for completing them all was very exhausting*” at least show that student teachers need to be made aware that teaching needs sacrifice but that it is indeed a worthwhile job. Surprisingly, one respondent whose teaching interest increased (scaling 2 to 3) admitted that initially teaching was not his/her interest because of the requirement to make Lesson Plans. Initial interest which was in the ‘dislike’ zone grew to be in the ‘like’ zone – he/she pointed out, “*Because it [teaching]’s challenging & fun.*” The decreased interest which this study also found should not be discouraging; however, it can be a caution for improvement – how to improve the quality of Teaching Practice and Micro Teaching.

This paper has revealed what student teachers think about their interest or their self-rating of teaching interest before and after Teaching Practice and Micro Teaching

which are the two practical components of a teacher education program. The study has shown that more encouragement takes place for it is found that more student teachers’ teaching interest is enhanced to a certain extent. However, when calculated statistically, the interest change is significant only with regard to Micro Teaching. As a teacher education program naturally expects a success in producing outputs who are going to be teachers leaving their label as ‘student teachers’, or a success in transforming the “pre-service teacher” to “real teachers” (Katrina, 2004 in Yılmaz & Çavas, 2008), attempts should be made to advance their teaching interest especially after Teaching Practice. If the attempts are not made explicit, student teachers’ interest may be destructively influential in spite of the training efforts provided by the teacher education program.

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## **The Effect of Constructivism, Metacognition and Neurocognitive-based Teaching Model to Enhance Veterinary Medicine Students' Learning Outcomes**

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### **ABSTRACT**

The purpose of this study was to examine the effects on the learning outcomes of veterinary medicine students after the intervention of constructivism, metacognitive, and neurocognitive based (CMEN) and traditional teaching models to the experimental and control groups respectively. The total participants were 84 students from Faculty of Veterinary Medicine, a public university in Khon Kaen province, Thailand. They were equally distributed to 42 students in each group on a voluntary basis. Researchers employed experimental research pre-test and post-test control group design. Results of this study showed that there was no significant difference between groups on the dependent variables before the intervention. However, all the dependent variables namely medical terminology and anatomical knowledge achievement, metacognitive ability, and working memory ability had significant differences between groups after the intervention. The developed teaching model has been proven to successfully promote students' learning outcomes. As a result,

the CMEN teaching model can enhance students' abilities in understanding medical terminology, anatomical knowledge, raise their metacognitive ability, and promote their working memory ability.

*Keywords:* Anatomical knowledge, constructivism, metacognitive and neurocognitive-based teaching model, medical terminology, metacognitive ability, traditional teaching model, working memory ability

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## INTRODUCTION

Traditionally universities employ instructive forms of teaching such as lectures to convey much of the curriculum content in the pre-clinical courses of veterinary medicine and related disciplines (Lane, 2008). However, past researchers have found that the traditional teaching model not only encourages a superficial approach to learning (Canfield, 2002) but also many students are unable to effectively reason and their application of knowledge to real-life situations is less than optimal (Lane, 2008). In addition, it seems that advances in medical knowledge and biotechnology are escalating the curricular content of veterinary schools to massive sections, to the point that it could be considered impracticable to ensure that all students have a sufficient knowledge base (Doherty & Jones, 2006).

Veterinary medicine has increasingly embraced simulation and other teaching approaches as new veterinary teaching models to allow students to hone their skills on true-to-life models before moving on to live animals (Valliyate, Robinson, & Goodman, 2012). According to Englar (2017), there are a limited number of veterinary medicine teaching models in the market to train the next generation of veterinarians resulting in an unmet need and opportunity for new veterinary teaching models to be developed. In addition, the new teaching model, driven by a combination of constructivism, metacognition, and neurocognition, has become important in

veterinary education as a means to teach basic and advanced concepts along with aiding the development of cognitive and learning abilities.

Recently, researchers (Srikoon, Bunterm, Nethanomsak, & Tang, 2017; Sripongwiwat, Bunterm, Srisawat, & Tang, 2016; Tornee, Bunterm, Muchimapura, & Tang, 2017; Uopasai, Bunterm, Muchimapura, & Tang, 2017) have found that the constructivism, metacognitive and neurocognitive-based teaching model has the potential of making a significant contribution to students' learning outcomes. These researchers have successfully explored how the mechanisms of learning and cognitive development relate to educational attainment if the teaching model can be optimized. For example, Sripongwiwat et al. (2016) developed a teaching model based on constructionism which was rooted in constructivism and combined with neurocognitive learning approaches, and proved that the constructionism and neurocognitive-based teaching model had successfully promoted secondary school students' science learning outcomes, including nanotechnology content knowledge, science process skills, scientific attitudes, as well as creative thinking.

Srikoon et al. (2017) further supported the claim of effectiveness of the neurocognitive-based teaching model in enhancing students' attention, working memory, and mood. Besides, the findings of Uopasai et al. (2017) also reveal that the constructivism, metacognition and neurocognitive-based teaching model have

improved the veterinary medicine students' behavioral, electrophysiological, and achievement change in a Thailand public university. Finally, the findings of Tornee et al. (2017) indicate that the intervention of neurocognitive constructivist guided-inquiry based teaching model has made an improvement in the attention abilities of Grade 11 students. According to Nelson (2008), and Perkins and Wieman (2008), students should be helped to discover the value of evidence-based reasoning and higher-order cognitive skills, and taught to become innovative problem solvers. Thus, promoting the idea that students should be engaged in the excitement of science.

According to Akpan and Beard (2016), constructivism is a teaching model, not a theory. Instructors will constantly search for new strategies to assist their students to understand and connect to their past or present experiences when they are applying the constructivist teaching model. The constructivist philosophy of science teaching and learning is about students' mental models and their misconceptions which have important implications for instructors who wish to model scientific reasoning in an effective fashion for their students (Cakir, 2008). The growth of constructivism is an epistemological commitment and the teaching model includes aspects of Piaget's (1978), Ausubel's (1963), and Vygotsky's (1978) learning theories, namely the importance of establishing prior knowledge or existing cognitive frameworks as well as the use of relevant information to drive conceptual change.

According to Chauhan and Singh (2014), metacognition is the student's ability to use prior knowledge to plan a strategy for approaching a learning task, take necessary steps to solve the problem, reflect on and evaluate results, and modify his or her approach as needed. The metacognitive approach assists students to choose the appropriate tool for the task and plays a critical role in successful learning. In addition, metacognitive thinking is a key component in the transfer of learning. The student's development of metacognitive skills is defined as meta-learning. Meta-teaching strategies can help mediate the metacognitive skills of students and stimulate their metacognitive thinking. As a result, lecturers need to help student's metacognitive awareness and identify the factors that enhance metacognitive development.

The neurocognitive learning theory is a combination of three traditionally separate strands of inquiry, namely neurophysiology with an emphasis on the biological bases of brain and neural activity; cognitive science with a focus on information processing and internal representations of experience, and learning theory that explains how students cumulatively interact with, and adapt to, our environments (Anderson, 2009). Therefore, the fundamental principle of neurocognitive learning is that the brain actively constructs illustrations of experience at various levels through integrated 'action-reaction loop' mechanisms. Anderson further emphasized that the brain continuously engages in a constructive activity, either internally

instigating interactions among functional modules to self-regulate and initiate new internal states or assembling internal illustrations to actively perceive and incorporate incoming sensory experiences into existing systems of logic and knowledge networks.

The constructivism, metacognition and neurocognitive-based teaching model (CMEN) was developed by Uopasai (2015) by utilizing the three emerging fields, namely the constructivist philosophy of science teaching and learning, neurocognitive learning theory and metacognitive knowledge. Firstly, the idea of constructivism is to provide opportunity for students to construct knowledge by themselves. Therefore, lecturers have to focus on the student in thinking about learning (Srikoon et al., 2017). There is no knowledge independent of the meaning attributed to experience by the students. Secondly, the metacognition is another important component of the CMEN teaching model, highlighting students' inquiry and thinking (Uopasai et al., 2017). In short, lecturers' metacognitive knowledge in the context of teaching of higher order thinking skills will be the major concern. Finally, neurocognition emphasizes how the students' brains build cognitive systems from their sensory memory (Goswani, 2008).

The quality of teaching and learning in Thailand's higher education institutions are planned to support the implementation of the educational guidelines set out in the National Education Act, according to the Qualification

Framework for Thailand's higher education system. This is to guarantee consistency in both standards and award titles for higher education qualifications as well as to make clear the correspondence of academic awards with those approved by any of the higher education institutions elsewhere in the world. The Thailand Quality Framework is a benchmark to assist in delivering appropriate ideas of comparison in academic standards for the institution in their planning and internal quality assurance processes (Thailand Ministry of Education, 2006). Consequently, higher education students' learning is categorized into five domains namely ethical and moral development, knowledge, cognitive skills, interpersonal skills and responsibility, and analytical and communicative skills. Meanwhile, students' achievements in the Faculty of Veterinary Medicine were found to be unsatisfactory for the past few years.

Effective teaching in learning medical terms or vocabulary in health sciences would assist veterinary medicine students to understand the origin of words, rules of creating words from etymology, memorization, radical, and finally connected words to ease the difficulties and complication of their learning. According to Veach and Holtsberry (2009), students have to understand the relationships between the terms with anatomy, physiology and clinical significance. This is further emphasized by Anderson (2009) where a process of restructuring of existing knowledge has to be sufficient in accordance with the penetration of new experience to give students an idea

of the occurring of terminology association. In short, the understanding of medical terms has to be actively created through interaction with sensory and be partly unique to the cultural and educational memorable events of the veterinary medicine students.

### **Pedagogical Manipulation**

This study aimed to examine the learning outcomes of two teaching models, namely the CMEN and the traditional model (TM). The learning outcomes were an achievement on understanding the skeletal system of veterinary anatomy, metacognitive ability, and working memory ability (Figure 1). Both teaching models provided an equal opportunity for the instructor and students to learn how their knowledge, cognition, and emotions interact with the environment and how in both groups, change occurred through the learning process (Joyce, Weil & Calhoun, 2015).

The constructivist learning approach in this study means encouraging students to use active techniques, for example experiments, real-world problem-solving to create more knowledge and then reflect on and discuss about what they are doing and how their understanding is changing. The instructors have to understand the students' pre-existing conceptions and guides the learning activity so that they can teach their students based on the students' prior knowledge and experiences. The metacognitive learning theory is defined as the processes of planning, tracking, and assessing students' understanding or performance by facilitating their metacognitive development and

promoting the monitoring and regulation of one's own cognitive enterprises. The application of metacognitive strategies such as self-awareness and self-monitoring is to develop students who can control their own learning and learn how to learn for life. The fundamental principle of neurocognitive learning is that the brain actively constructs representations of experience at various levels through integrated 'action-reaction loop' mechanisms. Thus, the brain continuously engages in constructive activity (Anderson, 2009). Instructors have to provide the learning environment either internally initiating interactions among functional modules to self-regulate and initiate new internal states, or by mobilizing internal representations to actively perceive and incorporate incoming sensory experiences into existing systems of logic and knowledge networks.

Learning outcomes in this study are measured in three aspects namely medical terminology and anatomical knowledge, metacognitive ability, and working memory. A basic knowledge of medical terminology is an essential requirement of medical science students, namely medicine, dentistry, medical technology, nursing, and veterinary medicine. This is because they need to acquire the knowledge of medical terminology in order to proceed their studies in other subjects. Owing to the emergence of new diseases and technological advancement, medical terminology has kept on increasing adding to the students' already heavy learning load. As a result, veterinary medicine instructors need to improve their

teaching approaches to make students aware of the linkage of medical terminology and clinic (Veach & Holtsberry, 2009).

Metacognitive ability refers to the knowledge, awareness of students' ability to control and assess their own thinking processes to their intellectual thought processes and strategies (Brown, 1978; Flavell, 1979). Metacognitive ability comprises knowledge about cognition and regulation of cognition. Knowledge of cognition covers declarative, procedural, and conditional knowledge while regulation of cognition refers to a set of activities that help students to control their learning such as planning, monitoring, evaluating, information management, and debugging (Schraw & Dennison, 1994).

Working memory refers to the students' ability to process and remember information which is interconnected to a range of cognitive activities from cerebral tasks to verbal communication (Kane & Engle, 2002). Srikoon et al. (2017) defined working memory as an active system of storing information and information processing. As a result, the information must first be processed in working memory before students can remember the information (Cowan, 2005). Past researchers have proved that working memory is associated with academic attainment (Alloway & Alloway, 2010; Engel de Abreu, Conway, & Gathercole, 2010).

The CMEN model was used to teach the experimental group and the TM model was used for the control group. Both groups were taught the same content of the canine

anatomy skeletal system, consisted of four chapters including a skull, fore limb bone, hind limb bones, and vertebrae. Both groups attended their lessons for a total of 20 hours. The CMEN model is an innovative teaching model which integrated the three major components of constructivism, metacognition, and educational neuroscience (Uopasai, 2015). Consequently, the CMEN model composed of six phases as follows: (i) perception and attention; (ii) objective of planning and monitoring; (iii) multisensory integration; (iv) linking; (v) rehearsal and practice, and (vi) summary and evaluation.

In the perception and attention phase, the instructor showed students a real canine skeleton along with a video projection displaying a dog's bone disorders, paralysis, walking with only two legs, and asked the students the cause of the disease. This phase could increase the students' perceptions and attention about the impact on the encoding of information in working memory (Dehn, 2008). This is followed by the planning and monitoring phase whereby the instructor informed students about the objectives of the lesson and students were expected to be able to describe the characteristics, relationship with adjacent bones, and clinical significance of the canine vertebral column. In addition, students were informed that every lesson will be accompanied by a test on the written medical terms the scores of which will in turn become part of their course evaluation. The instructor allowed them to analyze and evaluate the strategies for their own learning by handing out

written assignments and checklists which included items such as ‘*I set specific goals before I begin a lesson*’, ‘*I organize my time to be able to accomplish my goals*’ etc. In the second phase, students are trained to set goals, plan, and monitor their learning strategies by themselves (Cheng, 2011; Schraw & Dennison, 1994).

The third phase is multisensory integration whereby students’ polysensory cortices were stimulated with a consistent multimedia and tactile media, with real bone, simultaneously. This could cause the recognition and coding efficiency as indicated by Kim, Seitz, and Shams (2008), Alais, Newell, and Mamassian (2010), and Koelewijn, Bronkhorst, and Theeuwes (2010). In this phase, the instructor presented pictures of the various views of the vertebrae, such as cranial, caudal, dorsal, ventral, and lateral, on the screen and explained the important characteristics of each. This is coupled with an activity whereby students had to pick up the pieces of bone which they considered. The next phase is the linking phase which required students to use their prior knowledge to build medical terms with prefix, suffix, and root. The instructor presented the medical term that they learned from Phase 2 to mix the words, for example, cranial articular process. Cranial refers to the skull, articular refers to joints, and process means a bony projection of the vertebra. Therefore, cranial articular process refers to a process on the cranial side of a vertebra that serves the purpose of fitting with an adjacent vertebra. The instructor thus led the students to learn the etymology of the word combination.

The fifth phase is rehearsal and practice whereby students rehearsed and practiced the medical terms that they learned. The instructor allowed students to review a list of vocabulary by learning the different parts of the bone with their peers by taking turns within their own group either writing a post or checking the accuracy. Students’ working memory was trained using provocation as a photo of the vertebrae in various perspective or orientation, and then they were randomly asked about the name of the final, semi-final, and quarter-final bones. The final phase is summary and evaluation. In this phase, students had to summarize and evaluate their content knowledge and strategies.

The traditional model (TM) is the teaching model used by the control group and is followed the TQF manual of Veterinary Medicine of this public university. The TM model composed of three phases namely introduction, instruction, and summary. The introduction phase of TM model is the same as the second phase of CMEN model. The instruction phase of TM model is divided into two sub-phases namely lecture and laboratory phase. At the lecture sub-phase, the instructor presented the picture of the various views of vertebrae such as cranial, caudal, dorsal, ventral, and lateral on the screen and explained the important characteristics. The instructor illustrated how to create new medical terms from prior ones. Likewise, in the laboratory sub-phase, the instructor distributed four to five students into each group and provided each group with a handbook titled ‘*Miller ‘s Guide to the Dissection of the Dog*’ and

a box containing canine bones. They studied the vertebrae by themselves with the aid of the provided handbook.

Students were required to summarize the main idea of the gross anatomy of the vertebrae at the final phase of the TM model. The instructor gave each student a diagram thought (mind mapping) to link all the terminology. Students evaluated their understanding

by matching the bones photos provided by the instructor with the picture shown on the screen. This was followed by the switching process whereby students have to evaluate their understanding by provoking other questions. Finally, students were required to write their learning planning, self-regulating learning, and self-assessment.

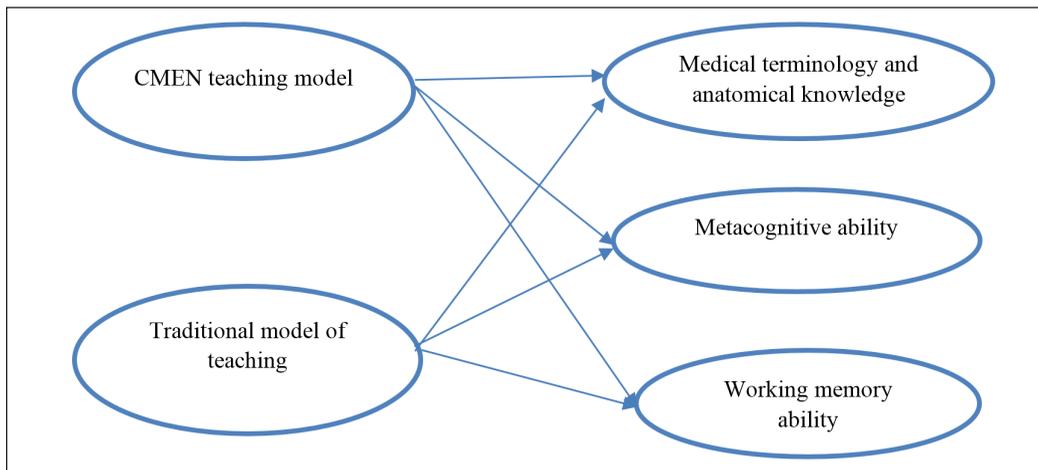


Figure 1. The effects of CMEN teaching model and traditional model of teaching on students' learning outcomes

### Purposes of the Study

The purpose of this study was to examine the effect of using CMEN teaching model for promoting the learning outcomes of the students of veterinary medicine. Specifically, this study was aimed to achieve the following objectives:

1. To study the mean differences between the experimental and control groups' achievement on understanding the skeletal system of veterinary anatomy.
2. To study the mean differences between the experimental and control groups' metacognitive ability.
3. To study the mean differences between the experimental and control groups' working memory accuracy and reaction time while performing working memory tasks.

## METHOD

### Research Design and Study Samples

An experimental design of pretest-posttest control group was used to measure the effects of both CMEN and traditional models of teaching before and after the intervention. The design was chosen so that researchers were able to see the effects of each type of teaching model intervention on a group. However, researchers could not utilize randomization procedure to manage the groups for the intervention as it would obstruct the daily operation of the learning. Therefore, researchers had taken into consideration the confounding factors such as age, gender, and handedness to ensure the participants were equally distributed between the two groups.

A total of 84 second-year undergraduate students who enrolled in the Small Animal Anatomy course in the first semester of the academic year 2014-15 from Faculty of Veterinary Medicine in a public university located at Khon Kaen province were selected as participants. These 84 participants were equally distributed to experimental and control groups on a voluntary basis. A 2 (CMEN vs TM) x 2 (time of measure: pretest vs posttest) design was utilized in this study. Participants' learning outcomes namely achievement on understanding the skeletal system of veterinary anatomy, metacognitive ability, and working memory accuracy and reaction time were measured both before and after intervention in order to compare the effectiveness of the two teaching models.

### Research Instrument

Research instruments were mainly used as tests to measure students' learning outcomes. A total of four types of instruments were utilized in this study, namely medical terminology test, anatomical knowledge test, metacognitive awareness inventory (MAI), and working memory battery test. The medical terminology test was used to measure the understanding of the medical terminology terms used to describe the dog skeletal system accurately. It was comprised of 30 items selected from the item bank of Department of Anatomy, Faculty of Veterinary Medicine, Khon Kaen University, Thailand. The reliability (KR20) was 0.91; discrimination index was 0.27 to 0.61, and difficulty index was 0.27 to 0.79. The anatomical knowledge test was used to measure the understanding of the canine skeletal anatomy which consisted of 30 multiple choice items selected from the Department of Anatomy, Faculty of Medicine, Khon Kaen University, Thailand. The reliability (KR20) was 0.86; discrimination index was 0.22 to 0.46, and difficulty index was 0.26 to 0.79.

The Metacognitive Awareness Inventory (MAI) is a rating scale used to measure two components, metacognitive knowledge (declarative, procedural, and conditional knowledge) and metacognitive regulation (planning, monitoring, evaluating, information management, and debugging) which consisted of 52 items. This instrument was adapted from Schraw & Dennison (1994) and translated from English to the

Thai language to ensure that the participants were clear about the statements. The reliability (KR20) was 0.95.

The working memory battery test was originally in Thai version and adopted from Bunterm et al. (2015) which comprised 10 tasks. The 10 tasks covered: i) left-right; ii) up-down; iii) switching; iv) flanker; v) 2-words span; vi) 3-words span; vii) 4-words span; viii) 0-back; ix) 1-back, and x) 2-back. This working memory battery test allowed the researchers to measure working memory accuracy and reaction time. Students were given 10 trials for each task, adding up to a total of 100 trials. The reaction time below 200 milliseconds was excluded, and data was analyzed in the range of  $\bar{X} \pm 3S.D.$

The 'left-right' and 'up-down' tasks are considered as binary choice reaction time tasks (CRTs) which required the participants to respond as fast as possible without errors by pressing one of the two keys. The 'switching' task required the participants to meet the stimulus of left-right and up-down tasks. The 'flanker' task is an inhibition test used to assess the ability to suppress responses which are inappropriate in a particular context. The stimulus of 'flanker' task consisted of a set of five arrows, with the target stimulus placed at the central position. The test of memory span is the Thai word span comprised 2-, 3-, and 4- words span. In the 2-, 3-, and 4- words span, Thai semantic words are presented sequentially at a rate of one per second in the center of the screen. The n-back task is a continuous performance task that comprised 0-, 1-, and

2- back tasks. Pictures of the characters in the Ramayana such as Rama, Lakshmana, Sita, and Hanuman are used as the stimulus to match the one from n-steps earlier in the sequence. Again, all the 10 tasks of the working memory battery test were in the Thai language and the goodness of fit test for construct validity purpose had been evaluated by Bunterm et al. (2015). The test-retest reliability values of these tasks were ranged from 0.822 to 0.979.

### Data Analysis

Repeated measures multivariate analysis of variance (Repeated MANOVA) was used in analyzing the effect of time, teaching model, and interaction between time and teaching model on three dependent variables: medical terminology and anatomical knowledge achievement, metacognitive ability, and working memory ability. The purpose of using MANOVA is to test whether the vectors of means for the two groups are sampled from the same sampling distribution (Hair, Back, Babin, & Anderson, 2013). Wilks' lambda, a direct measure of the proportion of variance in the combination of dependent variables that is unaccounted for the group variable (Everitt & Dunn, 1991), is used to test whether there are differences between the means of identified groups of students on a combination of dependent variables.

### RESULTS AND DATA ANALYSIS

Results are presented according to the purposes of the study as indicated above. The outcomes of the tests showed that there were no age ( $t_{(82)} = 0.267, p = p > .05$ ),

gender ( $\chi^2 = 1.248$ ,  $df = 1$ ,  $p > 0.05$ ), and handedness ( $\chi^2 = 0.553$ ,  $df = 1$ ,  $p > 0.05$ ) differences between the experimental and control groups. Thus, the experimental and control groups were identified as the same sampling distribution and appropriate to follow up with the intervention.

The results are presented in two sections namely descriptive and inferential findings. The initial findings highlight the medical terminology and anatomical knowledge achievement, metacognitive ability, and working memory ability of veterinary medicine students before and after using the CMEN and traditional models of teaching in their educational instruction. This is followed by evaluating the impact of these two teaching models on the learning outcomes of the students. Finally, the different impacts of the two teaching models are measured.

### **Findings of Medical Terminology and Anatomical Knowledge**

A 2 x 2 multivariate analysis of variance (MANOVA) was used to examine the effects of the two teaching models on the learning outcomes of veterinary students. Results indicated that pretest vs. post-test of learning outcomes on the skeletal system of canine anatomy which consisted of achievement in medical terminology and anatomical knowledge of both the experimental and control groups are presented in Table 1. All post-test results show an increment compared to the pre-test results after the intervention any of the two teaching models.

The Box's M test for equality of variance-covariance matrices was not significant ( $p > 0.05$ ) and implied that the assumption of homogeneity across the group was met. Repeated-measures MANOVA analysis confirmed that there was a significant multivariate effect of the interaction between the groups and reaction time: Wilks'  $\lambda = 0.89$ ,  $F_{(2, 81)} = 18.53$ , ( $p < 0.05$ ), partial  $\eta^2 = 0.10$ . In addition, findings indicated that there was a significant multivariate effect between learning outcomes which encompassed the abilities in understanding medical terminology and anatomical knowledge across the groups regardless of their reaction time: Wilks'  $\lambda = 0.81$ ,  $F_{(2, 81)} = 9.68$ ,  $p < 0.01$ , partial  $\eta^2 = 0.19$ . There was a significant multivariate effect across within-subjects time point (regardless of student group): Wilks'  $\lambda = 0.03$ ,  $F_{(2, 81)} = 1426.05$ ,  $p < 0.01$ , partial  $\eta^2 = 0.97$ .

When univariate tests were performed on the dependent variables, results indicated that the ability in understanding medical terminology score of an experimental group was higher than control group (regardless of time point),  $F_{(1, 82)} = 7.18$ ,  $p < 0.01$ , partial  $\eta^2 = 0.08$ ; while anatomical knowledge score was also higher than control group,  $F_{(1, 82)} = 10.53$ ,  $p < 0.01$ , partial  $\eta^2 = 0.11$ .

Before intervention, there is no mean difference of both dependent variables (ability in medical terminology and anatomical knowledge) between groups, Wilks'  $\lambda = 0.09$ ,  $F_{(2, 81)} = 0.24$ ,  $p = .79$ , partial  $\eta^2 = 0.01$ . After intervention, findings indicated that there was a significant mean difference between groups, Wilks'  $\lambda = 0.71$ ,

$F_{(2,81)}=15.94, p < 0.01$ , partial  $\eta^2= 0.28$ . The experimental group scored higher in medical terminology ( $F_{(2,81)}=18.36, p < 0.01$ , partial  $\eta^2= 0.28$ ) as well as anatomical knowledge ( $F_{(2,81)}=10.64, p < 0.01$ , partial  $\eta^2= 0.12$ ) than the control group. The mean scores

and standard deviation of the second-year veterinary medicine students in both medical terminology and anatomical knowledge tests, before and after intervention, are shown in Table 1.

Table 1  
Pre-test vs post-test of skeletal system of veterinary anatomy achievement

Dependent variables	Experimental group (N=42)					Control group (N=42)				
	Pre-test		Post-test		t-value before intervention	Pre-test		Post-test		t-value after intervention
	M	SD	M	SD		M	SD	M	SD	
Medical terminology	7.05	3.09	22.51	1.97	0.63	6.64	2.81	20.84	1.69	4.29**
Anatomical knowledge	6.48	2.39	22.69	2.35	0.21	6.36	7.83	20.36	4.16	6.26**

\*\* $p < 0.01$

### Findings of Metacognitive Ability

A 2x2 repeated MANOVA was utilized to examine the effect of the two teaching models on the metacognitive ability of the veterinary medicine students. The analysis was conducted with the repeated measure of time (before and after intervention) as the independent variables and mean score for declarative knowledge, procedural knowledge, condition knowledge, planning, monitoring, evaluating, information management, and debugging, as the dependent variables. Results revealed that there was a significant multivariate effect across the interaction between student group and time point: Wilks'  $\lambda = 0.56, F_{(8, 75)} = 7.28, p < 0.01$ , partial  $\eta^2 = 0.44$ . There was a significant multivariate effect for between-subjects (of the combined mean

score of eight components) across student group (regardless of time point): Wilks'  $\lambda = 0.86, F_{(8, 75)} = 1.49, p < 0.05$ , partial  $\eta^2 = 0.14$ . There was also a significant multivariate effect across within-subjects time point (regardless of student group): Wilks'  $\lambda = 0.46, F_{(8, 75)} = 11.25, p < 0.01$ , partial  $\eta^2 = 0.55$ .

When univariate tests were performed on the dependent variables, results indicated that all the components of a metacognitive ability of the experimental group were significantly higher than the control group (regardless of time point) at 0.05 significant level, except procedural knowledge of experimental group was significantly higher than control group at 0.01 significant level. Before intervention, there was no mean difference of all dependent variables

between the groups, Wilks'  $\lambda = 0.97$ ,  $F_{(8,75)} = 0.24$ ,  $p > 0.05$ , partial  $\eta^2 = 0.03$ . After intervention, there was a significant mean difference between groups, Wilks'  $\lambda = 0.56$ ,  $F_{(8,75)} = 7.49$ ,  $p < 0.01$ , partial  $\eta^2 = 0.44$ . The mean scores and standard deviation of the metacognitive ability before and after

intervention were shown in Table 2. Before the intervention, the result showed that there was no difference between the groups in all components. After the intervention, the experimental group had performed significantly better in all components of metacognitive ability than the control group.

Table 2  
Pre-test vs post-test of metacognitive ability

Dependent variables	Experimental group (N=42)					Control group (N=42)				
	Pre-test		Post-test		t-value before intervention	Pre-test		Post-test		t-value after intervention
	M	SD	M	SD		M	SD	M	SD	
Procedural knowledge	12.88	2.06	14.98	1.55	0.10	12.93	2.18	12.81	2.16	5.28**
Conditional knowledge	17.24	2.07	19.43	1.63	0.14	17.17	2.52	17.64	2.48	3.91**
Planning	22.40	3.22	25.83	2.34	0.69	22.86	2.79	23.12	3.19	4.28**
Monitoring	21.31	3.85	25.17	2.65	0.29	21.07	3.51	22.57	2.90	4.45**
Evaluating	18.57	3.75	22.02	2.51	0.23	18.74	2.73	19.5	3.21	4.01**
Information management	34.12	5.03	39.17	3.53	0.46	34.62	4.89	34.86	5.62	4.21**
Debugging	18.21	2.93	20.81	2.28	0.45	18.48	2.36	18.24	3.54	3.96**

\*\* $p < .01$

### Findings of Working Memory Ability

Working memory was measured based on accuracy and reaction time. The mean score and standard deviation of accuracy and reaction time measured by each working memory tasks between experimental group and control group is shown in Table 3 and 4.

**Accuracy.** A repeated measure of time (before and after intervention) as the independent variables and the accuracy percentage of performing the working memory tasks including left-right, up-down, switching, flanker, 2-word span,

3-word span, 4-word span, 0-back, 1-back, and 2-back task as dependent variables. A 2x2 multivariate analysis of variance (MANOVA) findings confirmed that there was a significant multivariate effect for between-subjects (of the combined accuracy of 10 tasks) across student groups (regardless of time point): Wilks'  $\lambda = 0.68$ ,  $F_{(10, 73)} = 3.50$ ,  $p < 0.01$ , partial  $\eta^2 = 0.32$ . There was also a significant multivariate effect across within-subjects time point (regardless of student group): Wilks'  $\lambda = 0.78$ ,  $F_{(10, 73)} = 25.51$ ,  $p < 0.01$ , partial  $\eta^2 = 0.78$ . Findings also showed that a significant multivariate

effect across the interaction between student groups and time point: Wilks'  $\lambda = 0.44$ ,  $F_{(10, 73)} = 9.35$ ,  $p < 0.01$ , partial  $\eta^2 = 0.56$ .

When univariate tests were performed on the dependent variables, results indicated that the accuracy percentage of performing working memory tasks such as, up-down, switching, flanker, 2-word span, and 3-word span, had significantly higher accuracy than control group (regardless of time point) at  $p < 0.05$ . On the other hand, working memory tasks such as, left-right, 4-word span, 0-back and 1-back, were found to have higher accuracy than the control group at  $p < 0.01$ . Before intervention, there was no mean difference of all dependent variables (reaction time of 10 working memory tasks) between groups, Wilks'  $\lambda = 0.86$ ,  $F_{(10,73)} = 1.19$ ,  $p = 0.31$ , partial  $\eta^2 = 0.140$ . After

intervention, there was a significant mean difference between groups, Wilks'  $\lambda = 0.47$ ,  $F_{(10,73)} = 8.20$ ,  $p < 0.01$ , partial  $\eta^2 = 0.53$ . The experimental group was found to obtain higher accuracy level than the control group in almost all the tasks except flanker task. The mean scores and standard deviation of the accuracy percentage of the 10 working memory tasks before and after intervention are shown in Table 3.

**Reaction Time.** To order for the reaction time of performing the working memory tasks including left-right, up-down, switching, flanker, 2-word span, 3-word span, 4-word span, 0-back, 1-back, and 2-back task as dependent variables, a repeated measure of time (before and after intervention) is the independent variables.

Table 3  
Pre-test vs post-test of working memory ability (accuracy)

Dependent variables	Experimental group (N=42)				t-value before intervention	Control group (N=42)				t-value after intervention
	Pre-test		Post-test			Pre-test		Post-test		
	M	SD	M	SD		M	SD	M	SD	
Left- right	91.00	5.63	95.71	4.04	0.324	90.48	8.84	88.29	7.72	5.53**
Up-down	86.81	5.73	94.14	5.08	0.057	86.71	9.13	87.62	7.41	4.71**
Switching	86.76	5.84	93.43	5.32	0.361	86.14	9.44	86.57	8.03	4.61**
Flanker	89.83	4.25	93.14	3.88	0.153	91.90	4.56	92.76	4.10	0.44
2-word span	68.45	13.87	85.42	12.32	0.186	69.05	15.43	70.24	16.55	4.77**
3-word span	73.81	21.44	84.97	10.06	0.681	70.68	20.59	76.64	14.35	3.08**
4-word span	62.86	23.19	68.10	19.28	1.653	54.76	21.67	56.67	22.92	2.47*
0-back	70.57	16.51	86.81	7.15	0.191	71.29	15.38	71.62	15.34	5.70**
1-back	66.29	17.96	81.38	11.65	0.404	66.10	15.64	65.81	16.37	5.67**
2-back	40.00	15.46	60.24	17.46	0.210	40.71	17.31	45.00	19.29	3.85**

\* $p < .05$ ; \*\* $p < .01$

A 2x2 multivariate analysis of variance (MANOVA) findings confirmed there was a significant multivariate effect across the interaction between student group and time point: Wilks'  $\lambda = 0.38$ ,  $F_{(10, 73)} = 11.79$ ,  $p < 0.01$ , partial  $\eta^2 = 0.67$ . There was a significant multivariate effect for between-subjects (of the combined reaction time of 10 tasks) across student group (regardless of time point): Wilks'  $\lambda = 0.69$ ,  $F_{(10, 73)} = 3.15$ ,  $p < 0.01$ , partial  $\eta^2 = 0.30$ . There was also a significant multivariate effect across within-subjects time point (regardless of student group): Wilks'  $\lambda = 0.321$ ,  $F_{(10, 73)} = 15.47$ ,  $p < 0.01$ , partial  $\eta^2 = 0.68$ .

When univariate tests were performed on the dependent variables, results indicated that the reaction times of the experimental

group when performing left-right, up-down, switching, flanker, and 4-word span tasks of working memory were significantly shorter than the control group (regardless of time point) at  $p < 0.05$ , while 2-word span, 3-word span and n-back tasks were shorter than control group at  $p < 0.01$ . Before intervention, there was no mean difference of all dependent variables (reaction time of 10 working memory tasks) between groups, Wilks'  $\lambda = 0.90$ ,  $F_{(10,73)} = 0.24$ ,  $p < 0.05$ , partial  $\eta^2 = 0.10$ . After intervention, there was a significant mean difference between groups, Wilks'  $\lambda = 0.54$ ,  $F_{(10,73)} = 6.15$ ,  $p < 0.01$ , partial  $\eta^2 = 0.46$ . The experimental group had shorter reaction time in performing all the tasks compared to the control group. The mean scores and

Table 4  
Pre-test vs post-test of working memory ability (reaction time)

Dependent variables	Experimental group (N=42)				t-value before intervention	Control group (N=42)				t-value after intervention
	Pre-test		Post-test			Pre-test		Post-test		
	M	SD	M	SD		M	SD	M	SD	
Left-right	535.79	75.00	482.43	59.20	0.015	539.58	61.44	533.03	61.92	2.33**
Up-down	596.76	79.87	535.58	66.92	0.223	596.33	71.61	598.05	73.67	2.48*
Switching	863.24	111.72	751.96	91.85	0.033	868.10	104.90	831.69	123.46	3.13**
Flanker	616.19	64.60	554.34	49.47	0.656	607.41	57.97	610.63	62.25	2.40*
2-word span	4014.69	456.72	3345.98	598.65	1.529	4238.69	832.01	4272.86	928.85	5.43**
3-word span	6431.67	1545.75	5376.05	1388.57	1.654	6911.47	1070.95	6577.94	416.44	3.93**
4-word span	9561.54	3082.16	7587.42	1758.10	0.467	9927.93	4043.74	9532.00	2743.93	3.87*
0-back	478.27	76.53	408.70	63.25	0.503	477.31	81.10	488.75	83.71	3.01**
1-back	510.14	91.96	421.04	74.44	0.056	503.77	103.11	496.08	90.99	2.84**
2-back	554.93	131.44	501.89	122.29	0.657	588.59	144.40	582.24	142.82	2.68**

\* $p < 0.05$ ; \*\* $p < 0.01$

standard deviation of the reaction time of 10 working memory tasks before and after intervention are shown in Table 4.

## DISCUSSION AND CONCLUSION

The results of this study show that there is no significant difference between groups on the dependent variables before the intervention. However, all the dependent variables namely the learning outcomes such as achievement on understanding the skeletal system of veterinary anatomy, metacognitive ability, and working memory accuracy and reaction time have significant differences between groups after the intervention. On this line of reasoning, both the teaching models (CMEN and TM) are found to have a significant effect on the overall learning outcomes of second-year veterinary medicine students.

Results of this study indicate that the two teaching models have significantly different effects. As a result, great emphasis has been laid on the instructors to use effective teaching models for improving the learning outcomes of students. The results have revealed a greater understanding of the causal mechanism of the CMEN teaching model on the improvement of the learning outcomes of students. The results are supported by Uopasai et al. (2017). Uopasai (2017) found that CMEN teaching model had affected the 40 veterinary medicine students' behavioral, electrophysiological, and achievement change in a Thailand public university. With the passage of time, the importance of the teaching style of university instructors is being realized

and they are taking initiative to improve their teaching strategies using appropriate teaching models for the improved learning skills of the students (Jalbani, 2014).

The results of this study are found to be consistent with several previous findings of constructivism (Lin, 2015; Srikoon et al., 2017; Tanner, 2012). Lin used constructivism for vocabulary teaching to undergraduate students in Dalian University to make their own meanings and found it to be a more effective teaching model compared to the traditional approach. Moreover, findings also reinforced the concept of metacognition as emphasized by Tanner (2012). Tanner found that metacognitive based teaching enables students to discover their own strengths and weaknesses thus making them know how to learn, being able to monitor their own understanding and strategizing to resolve their confusions. In addition, Srikoon et al. (2017) revealed that the neurocognitive-based teaching model intervention had more effect on the attention, working memory, and mood of Grade 9 students than the conventional teaching model.

Tornee et al. (2017) had developed their constructivism and neurocognitive-based teaching model which was based on the theoretical foundation of neurocognitive learning theory and constructivist learning approaches. Their results are found to be parallel with the results of this study. Sripongwiwat et al. (2016) found that the constructivism and neurocognitive-based teaching model was able to enhance the science learning outcomes and creative

thinking of Grade 11 students in a secondary school in northeast Thailand. Tornee et al. (2017) found that there was a greater improvement in Grade 11 students' attention abilities after the intervention of neurocognitive constructivist guided-inquiry based teaching model compared to the conventional structured inquiry-based teaching model.

With a wealth of effective CMEN teaching models, veterinary medicine students, instructors, and the profession as a whole will likely benefit as they become more widely adopted. Ideally, newly developed teaching models will capture better educational achievement and learning abilities and expand on it by providing additional learning outcomes and benefits. It must be noted that even if this CMEN teaching model does not provide every benefit of learning outcome that the traditional model of teaching provided, it may still be superior overall. This is because the overall improvement from CMEN teaching model is found to be greater than traditional model of teaching although the traditional model of teaching still has its own significant effect. That the traditional model of teaching is entrenched and familiar is no reason for retaining them when other teaching models are shown to be more effective. Furthermore, we should not expect the CMEN teaching model to replace the traditional model of teaching as a total without further investigation on other aspects of learning outcomes. The CMEN teaching model will only allow instructors to re-conceptualize curricula and meet their

learning objectives while placing greater emphasis on constructivism, metacognitive and neurocognitive approaches.

Finally, the results of this study would provide further evidence in support of the need to develop the abilities of university instructors to deliver and guide students using constructivism, metacognitive approach as well as the application of neurocognition with educational practice as a new concept. An effective training program that relates to constructivism, metacognition and neurocognition is suggested to the Ministry of Higher Education, Thailand.

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## **The Choice of Suffix Variants for Participial Adjective in Corpus of Malaysian e-Newspapers**

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### **ABSTRACT**

In view of the dubiety caused by the concurrent use of suffix -t and -ed among Malaysians in forming the participial adjective, local newspaper texts were analysed in order to identify the preferred suffix variant used by Malaysian writers. Using corpus-based methodology, 12 predetermined words that can take suffix -t and -ed were generated from the selected e-newspaper prior to analysing them using WordSmith Tools 5 (WST5). The 12 words that belong to the adjective word class were categorised in accordance with the word form (-t and -ed) before comparison between both suffix variants was made. Findings revealed that while both suffix -t and -ed were used by Malaysians, the overall figure for the -t form is higher, thus indicating that Malaysians generally prefer to use the suffix -t to form the participial adjective. Nevertheless, the insertion of suffix -ed and -t to irregular verbs as a means to reflect adjectival function could possibly be deemed as a form of linguistic explicitness exhibited by a local variety. Because language is constantly evolving, pedagogically, educators should consider adopting the descriptive grammar and be flexible in accepting the use of both suffixes.

*Keywords:* Frequency, participial adjective, suffix, word form

### **INTRODUCTION**

Both American English (AmE) and British English (BrE) are generally accepted as standard references to emerging New Englishes. This is reflected by the recognition and endorsement given to BrE especially in countries where the British have had a colonial influence (Holmes, 2013), for example, Malaysia, Singapore, India, Hong Kong and Africa. It is a widespread

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belief that British colonies have not only adopted BrE as a means of communication but also in many important domains such as business, public administration, mass media and education. The diversion from BrE to AmE cannot be disregarded because Tottie (2002), as cited in Alfberg (2009), recorded that the majority of English native speakers are Americans, leading to the domination of AmE in English as a Second Language (ESL) and English as a Foreign Language (EFL) settings (Hernando, 2010). Although both are standard-providers of English (Berns, 1995), AmE and BrE exhibit distinct differences in terms of grammar, lexical use, vocabulary, idioms, spelling and pronunciation (Sanyal, 2013).

In Malaysia, it is claimed that Malaysian English bears a close linguistic resemblance to BrE due to the earlier British colonisation (Schneider, 2011) of the country. Despite having BrE as the pedagogical model in Malaysia (Ooi, 2001), the concurrent use of both AmE and BrE among Malaysians is apparent (Amin, 2012) because, as Durmuller (2008) stated, AmE has become more dominant than BrE worldwide. This has brought about debate on the need to conform to only one English variety due to the confusion it brings in the education domain. For instance, the alternate use of both words, *petrol* and *gas*, has brought about perplexity among readers (Hau, 2010). Moreover, in a study conducted by Botley and Dillah (2007), the use of American spelling among Malaysian students was unacceptable and was marked as spelling errors. This phenomenon mirrors

the torn between incorporating local features or championing one Standard English in the teaching of English in multicultural settings as highlighted by Groves (2010). Efforts to not treat all deviations from Standard Englishes as errors have been taken by many researchers. For instance, Groves (2010), and Deshors, Gotz and Laporte (2016) distinguished errors from innovations or acceptable features of New Englishes by defining their characteristics en route to describing the use of English among non-native speakers.

Instead of exploring lexical variation in Malaysian English as has been done rather extensively by Tan (2014), Ooi (2001) and many more, this study focusses on the morphological aspect of language use, specifically the addition of the suffix -ed and -t to a verb not as inflectional i.e. changing present tense to past tense but for derivational purposes. In this study, 12 predetermined words were chosen that are irregular verbs in nature, and that undergo a change in word class when either suffix -ed or -t is added, given that a suffix is capable of forming a derivative (Greenbaum & Nelson, 2013). For instance, adding suffix -ed and -t to the verb *spoil* can turn it into a participial adjective as in 'a *spoiled* brat' or 'a *spoilt* brat'. The participial adjective, as defined by the Merriam Webster Online dictionary, is a past participle that has an adjectival function. Because it has the same ending as verb participles, it is called a participial adjective. It must be noted that the suffix -ed is commonly used by Americans, whereas the suffix -t is preferred

by the British (Greenbaum & Nelson, 2013), as Hundt (2009) mentioned, there is a tendency for the -t suffix to hold on to life in BrE to avoid “treating the regular forms as a morphological Americanism” (p. 25). Nevertheless, although both AmE and BrE are well received by Malaysians, a clear-cut choice between suffix -ed and -t should be evident (Biber, Johansson, Leech, Conrad, & Finegan, 1999, as cited in Vanderlinden, 2014). Therefore, with the aim of eliminating the recurrent dubiety caused by the use of suffix -ed and -t among Malaysian writers, this study aimed:

- (i) To find out the occurrences of 12 irregular verbs when paired with suffix -ed and -t in an online news portal
- (ii) To find out the preferred suffix variant (-ed or -t) when forming the participial adjectives.

While it is undeniable that the use of suffix -ed or -t may connote the influence or preferred choice of variety of English i.e. either AmE or BrE among Malaysians, language variation as mentioned by Celce-Murcia and Larsen-Freeman (1999) “manifests most often in gradient rather than absolute, judgements of acceptability” (p. 9) This is especially true when lexicogrammar is concerned; therefore, this study hoped to provide a basis for deciding the use of the suffix form for the purpose of coherency. Schneider (2003) concurred by stating that both applied linguists and educators should be informed of the norm they are required

to adhere to in any given situation. Hence, findings of this study could also keep teachers, textbook writers and curriculum designers informed of the preferred choice of suffix when forming the participial adjective.

### **Past Studies on Affixation**

Affixes, as defined by Plag (2003), refer to the bound morphemes attached to the base, root or stem of a word. Apart from suffixes, affixes can also be subdivided into prefixes and infixes. According to Fromkin, Rodman and Hyams (2011), prefixes are usually inserted before other morphemes, while infixes are joined along with other morphemes. In contrast, suffixes are attached after the central elements. Derivational affixes and inflectional affixes are the two common types of affix. Bauer (1983) stated that inflectional affixation alters the word forms (grammar) of a particular lexeme, whereas derivational affixation turns a lexeme into a new word.

Studies done by Yasin (2013), Karlsson (2015), and Gurbuz (2015) focussed on the acquisition of derivational morphemes and inflectional morphemes among English as a Foreign Language (EFL) learners. In studying the acquisition of negative morphemes among Jordanian EFL learners, Yasin (2013) mentioned that knowledge pertaining to phonology, morphology, semantics, frequency of suffix occurrence and language exposure does play a role in helping learners to acquire negative morphemes. It was found that there was a

strong correlation between the frequency of suffix occurrence and morpheme acquisition, whereby negative morphemes that were largely used by these EFL learners had actually been those that appeared most in the English textbook (Yasin, 2013). While Karlsson (2015), who also conducted research into the mastery of suffix among advanced students whose L1 and L2 were Swedish and English, respectively agreed with the latter view, she discovered that the complexity of a suffix did not affect students' mastery of suffixation and students did not use any default suffix when they could not figure out the correct derivative form. Conversely, it was found in Gurbuz's (2015) study that Turkish EFL learners were able to make use of their knowledge of inflectional morphemes on unfamiliar words. Nevertheless, he noted that the findings to the study could not be linked to the mastery of suffix among L1 learners, although both L1 learners and EFL learners did possess some similarities when assigning inflectional morphemes to words of which they were uncertain.

To summarise, the studies above indicated the importance of providing aid in the acquisition of affixes among English language learners. Nevertheless, focus was not much centred on the mastery of suffixes, especially in the ESL context, and this includes the use of suffix -ed and -t, as both are able to form the participial adjective. Therefore, this study intended to fill the gap as well as to make way for the emergence of new research.

### **Factors Affecting Verb Regularisation**

According to Crystal (2011), regular verbs are defined as verbs governed by rules, whereas irregular verbs are verbs that cannot be predicted in nature. For instance, *want*, *call* and *use* are common regular verbs, whereas *burn*, *dream* and *learn* are irregular verbs. While irregular verbs such as *spoil*,  *dwell*, *spill*, *spell* usually take the -t ending to either form the past tense or past participle, Greenbaum and Nelson (2013) noted that these irregular verbs can also be predicted by rules, meaning that they can be spelt like other regular verbs (*spoilt/spoiled*, *dwelt/dwelled*, *spilt/spilled*, *spelt/spelled*). To date, there are several studies done to identify the factors that affect verb regularisation.

The study done by Lieberman, Michel, Jackson, Tang and Nowak (2007) delved into the English verb regularisation and the number of verbs that have not been regularised. It was found that only 98 irregular Old English verbs remain today. In their research, they also found that there was indeed correlation between the rate of regularisation and how frequently a word is used, which is in accordance with the term 'conserving effect' as proposed by linguist Bybee (2006). The conserving effect happens when the morphosyntactic structure alongside frequently appearing sequences is preserved. In other words, less frequently appearing irregular verbs tend to regularise by resorting to the -ed form, whereas irregular verbs that have been

appearing frequently to readers are prone to conform to the -t suffix in order to maintain their irregularity (Bybee, 2006).

Supporting Bybee (2006) is research done by Geeraert and Newman (2011), in which the British National Corpora (BNC), the World Wide Web (WWW) and the Corpus of Contemporary American English (COCA) were used to study the use of the English past tense verb form to replace the past participle verb. The findings indicated that Past Tense Spreading (PTS), which is the use of a past tense verb as a non-standard past participle, was resorted to in verbs that were used less frequently. For instance, the non-standard past participle, *have rang* was used instead of the standard past participle *have rung* due to its low frequency of use (Geeraert & Newman, 2011).

Nevertheless, Logghe (2014), and Vanderlinden (2014) in studying verb regularisation across different varieties of Englishes to validate the key reason ideated by Bybee (2006) and Lieberman et al.

(2007) showed contrasting outcomes. Their findings could not confirm the relationship between frequency of verb occurrence and verb regularisation. The studies reviewed above pertaining to verb regularisation have been closely associated with the past tense and past participle, while research into participial adjectives with suffix -ed and -t have been sidelined. Therefore, this study was needed to fill the gap.

**METHODS**

As the objective of this study is to identify the choice of suffix among Malaysian writers while forming the participial adjective, the corpus-based methodology was adopted. In its aim to better reflect the linguistic patterns of Malaysian writers, the data obtained were made up of a self-built corpus comprising articles from an online news portal, “The Star Online”. Newspapers, according to Rademann (2008) as cited in Tan (2014) possess the “characteristic of the respective period and society they are published in.

Table 1  
*The 12 predetermined words that take both suffix variants*

Words	-t	-ed
Burn	Burnt	Burned
Learn	Learnt	Learned
Dream	Dreamt	Dreamed
Dwell	Dwelt	Dwelled
Lean	Leant	Leaned
Spill	Spilt	Spilled
Smell	Smelt	Smelled
Spoil	Spoilt	Spoiled
Spell	Spelt	Spelled
Bless	Blest	Blessed
Kneel	Knelt	Kneeled
Leap	Leapt	Leaped

Launched in 1995, “The Star Online” originated from “The Star”, the print edition of the newspaper, which is one of the oldest English newspapers in Malaysia. “The Star Online”, as rated by Huang (2015), is Malaysia’s top visited news portal. Despite their effort to conform to international standard, newspapers, as pointed out by Crystal (1994), are always reflective of linguistic identity to a certain extent.

Table 1 shows the 12 predetermined words that can take both suffix -t and -ed, adopted from Vanderlinden’s (2014) study; prior to that, such words were picked from the list of irregular verbs found in the Longman Dictionary of Contemporary English. However, a check of these 12 irregular verbs in the Macmillan English Dictionary showed that only *burned*, *spoilt/spoiled*, *learned* and *blessed* belong to the word class, adjective.

Newspapers articles, specifically the nation genre that comprised a total of 42,144,788 words, were extracted using Spyder, a programming software, prior to being transferred and analysed using the WordSmith Tool version 5.0 (WST 5). The nation section with approximately 110,000 articles extracted from “The Star Online” archive dated from 1 January, 2006 to 31 December, 2012 was chosen as the source of the data used in this study. Unlike the sport, business and entertainment genres, which are mainly produced by international news agencies such as Reuters, Associated Press (AP) and Agency France-Press (AFP), national news is written by Malaysians, so this corpus made up of online national

news was designed to represent Malaysian English. Software created by Mike Scott, WST 5, helps examine how words behave in a text (Scott, 2010). WST 5 offers three applications, namely Wordlist Tool, Concordance List and Key Word List. However, in this study, only the first two applications were used. The Wordlist tool helped identify the 12 irregular verbs with -ed and -t suffix after scrutinising the frequency of each word in the word list. Analysis of words with regard to the context, on the other hand, was done using the concordance list.

Categorisation of words into their respective word forms was done before comparing the frequency of occurrence for each suffix variant. The final results were then tabulated, followed by analysis and discussion.

## RESULTS

Prior to focussing on the 24 predetermined word types, a total of 180,521 word types were generated using the word list programme. The findings consisted of two parts, which are tabulated and presented according to the research questions in this study.

In answering the first research question, the frequency of occurrence of the 12 words with -ed ending and -t ending is presented in the table below.

Table 2 shows the frequency of occurrence of 12 predetermined words with suffix -ed and -t, arranged in descending order. The words were *learn*, *burn*, *bless*,

Table 2  
 Frequency of the 12 predetermined words with *-ed* and *-t* ending

Words	Total	<i>-ed</i>		<i>-t</i>	
		Frequency	%	Frequency	%
Learn	6035	778	42.65	2527	75.8
Burn	1296	243	13.32	1053	15.18
Bless	468	468	25.66	0	0
Spoil	246	21	1.15	225	3.24
Spell	180	56	3.07	124	1.79
Spill	163	139	7.62	24	0.35
Dream	125	29	1.59	96	1.38
Smell	119	50	2.74	69	0.99
Leap	65	12	0.66	53	0.76
Kneel	31	6	0.3	25	0.36
Lean	17	17	0.93	0	0
Dwell	14	5	0.27	9	0.13
Total	8759	1824	100	6935	100

*spoil, spell, spill, dream, smell, leap, kneel, lean* and *dwell*, which occurred 8,759 times in total. Generally, the three most commonly used words were *learn, burn* and *bless*, contributing to 89% of the total word occurrence. Similarly, *spoil, spell, spill, dream, smell* and *leap* constituted a relatively significant figure, and they altogether made up 10.25% of the total sum. The words that appeared the least were *kneel, lean* and *dwell*, each occurring within the range of 0.16% to 0.3% only.

Nevertheless, when comparison was made between the *-ed* ending and the *-t* ending, it was observed that the total frequency of occurrence of suffix *-t* was relatively higher than its counterpart, *-ed*. Words that leant towards the *-ed* ending were *bless, spill, lean* and *dwell*, whereas words that took the *-t* ending were *learn,*

*burn, spoil, leap, kneel, dream, smell* and *spell*. While it was noted earlier that these 12 predetermined words were capable of taking both suffix *-ed* and *-t*, both *bless* and *lean*, however, skewed completely towards the former, as there is no occurrence for *bless* and *lean* with *-t* ending.

The second part of the findings deals with research question two regarding the preferred choice of suffix used by Malaysian writers when forming the participial adjective. Because this study focussed only on participial adjectives, a total of 7,810 words belonging to the word class, verb (i.e. past tense and past participle verb with *-ed* and *-t* ending) were eliminated from the concordance list. Table 3 shows the frequency of words in participial adjective form in accordance with suffix *-ed* and *-t*.

Table 3  
 Frequency of participial adjectives with *-ed* and *-t* ending

Words	Total	-ed		-t	
		Frequency	%	Frequency	%
*Burn	444	40	9.93	404	73.99
*Bless	207	207	51.36	0	0
*Spoil	137	8	1.99	129	23.63
*Learn	133	133	33	0	0
Spill	22	12	2.98	10	1.83
Spell	5	2	0.5	3	0.55
Smell	1	1	0.25	0	0
Lean	0	0	0	0	0
Dwell	0	0	0	0	0
Dream	0	0	0	0	0
Kneel	0	0	0	0	0
Leap	0	0	0	0	0
Total	949	403	100	546	100

Based on Table 3, the total frequency of words with *-ed* ending and *-t* ending occurring as participial adjectives is 949, where *burn* records the highest frequency count at 444, followed by *bless*, *spoil*, *learn*, *spill*, *spell* and *smell* with their occurrence of 207, 137, 133, 22, 5 and 1, respectively.

In general, the findings showed that out of the 12 words, only seven words were used by the Malaysian writers as participial adjectives. Except for the word *spill*, *spell* and *smell*, the results obtained in this study were in line with those codified in the dictionary, whereby *burn(ed)*, *learn(ed)*, *spoil(ed/t)* and *bless(ed)* indicated by asterisk in Table 3 could act as the participial adjective. The three words, namely *spell*, *smell* and *spill*, which were seen to be used by Malaysian journalists as adjectives, albeit insignificantly in terms of the figures shown, could possibly be deemed as a form

of grammatical innovation by Malaysian writers. Despite occurring in the *-ed* and *-t* ending; the absence of *lean*, *dwell*, *dream*, *kneel* and *leap* used as participial adjectives could be due to the nature of the word itself (i.e. action verbs), and therefore it can be safely deduced they are not commonly used to reflect adjectival function by writers in Malaysia. Moreover, the data used in this study comprised mainly hard news articles, which favour a writing style that is usually straightforward and thus, involved the use of fewer descriptive words like adjectives.

The total frequency of occurrences for *-ed* ending was 403, whereas the *-t* ending showed a total occurrence of 546, which was 143 words more than its counterpart. While this could be an early presumption as to the preferred choice of suffix variants among Malaysian writers, further observation showed otherwise.

Narrowing down to a comparison of individual words, it was observed that out of the seven words that occurred as participial adjectives, only *burn* (404), *spoil* (129) and *spell* (3) took the -t ending when forming the participial adjective. On the contrary, writers seemed to favour the -ed ending for forming the participial adjectives for *bless* (207), *learn* (133), *spill* (12) and *smell* (1). An interesting finding was that although the

total number of occurrences for the -t suffix was higher, the distribution of the figures, however, was not even and was limited to only four words, which were *burn*, *spoil*, *spill* and *spell*, with *burn* constituting the highest percentage (73.99%) of the total occurrence for suffix -t. This was contrary to the finding for -ed suffix, for which, all seven words that appeared as participial adjectives recorded at least one occurrence.

Table 4  
Concordance list for participial adjectives

N	Concordance
8	Jin wishes Christian readers a <b>Blessed</b> Christmas. May we all..
29	Youth is gathered here in this <b>blessed</b> morning to meet our..
55	.. so that they could have a <b>blessed</b> pilgrimage and return..
N	Concordance
19	Ruth Madoff, though scorned by <b>burned</b> investors, will likely..
195	.. the high temperature within the <b>burned</b> tanker, three teams of..
344	.. to compensate thousands of <b>burned</b> victims who have filed..
N	Concordance
24	.. only 92 votes. There were 447 <b>spoilt</b> votes. "This is the..
33	Ink, as it could create many <b>spoilt</b> ballot papers smudged..
42	.. and play. They may be labelled <b>spoilt</b> brats. Misunderstood..
N	Concordance
6	.. remove whatever remained of the <b>spilled</b> cargo.
22	And it's useless to cry over <b>spilled</b> milk. We are looking..
57	Wednesday July 7, 2010 Title: <b>Spilled</b> oil blamed for Tour..
60	.. a handful of sand lies <b>spilled</b> oil. Oil powers this..
62	.. mangrove roots drip black from <b>spilled</b> crude. There are no..

Table 4 shows the concordance list of four participial adjectives. A participle in nature, the participial adjective functions to describe a noun or to classify an attribute. As such, the participial adjective usually precedes a noun, for instance, *blessed* (participial adjective) pilgrimage, *burned* (participial adjective) tanker (noun) and

*spoilt* (participial adjective) votes (noun). One interesting finding was the word *spilled*, which was not included under the word class, adjective, in the dictionary. However, suffix -ed was added to the root word *spill* to form an adjective describing three different nouns, namely oil, milk and cargo as shown in the last group of concordance lists.

Table 5  
 Summary of the suffix choice by Malaysian writers

Suffix	-ed	-t
Total	403	546

Table 5 summarises the total frequency of occurrences of each suffix variant by Malaysian writers. Although the represented figures are rather small to generalise the preferred suffix variant used by locals in forming the adjective, the results obtained could act as a preliminary assumption that Malaysian writers prefer to use the -t form, which, according to Greenbaum and Nelson (2013), is very much favoured by the British. Nevertheless, this does not rule out the fact that AmE is playing an influential role among Malaysians, as claimed earlier by Hernando (2010), since the frequency of occurrence for both suffixes varied by 143.

## DISCUSSION

The overlap use of both varieties of English among Malaysians when forming participial adjectives has shown that despite having BrE as the standard model, AmE is indeed playing an impact in ESL settings (Hernando, 2010). Although the difference in number of the suffix -ed and -t varied only by 143 occurrences, the higher frequency of occurrences of suffix -t has concurred with the findings of Biber et al. (1999, as cited in Vanderlinden, 2014) that there was a preferred choice when it came to using these suffixes. Nevertheless, due to the small volume of data analysed, the relationship between high frequency items and the acquisition of suffixes, as well as

the tendency to conform to regularity as proposed by Bybee (2006) could not be confirmed.

The interchangeable use of -ed and -t suffixes to form participial adjectives evidently proves that Malaysian English, similar to the outer circle countries of Kachru's "Three Circles Model", as claimed by Groves (2010) and Schneider (2003), is undergoing the nativisation process. Schneider's (2003) claim of how similar Malaysian English is to that of her mother country is reiterated in this study by the strong preference for -t. Despite the fact that the dictionary provides that only *burned*, *learned*, *spoiled/spoilt* and *blessed* belong to the word class, adjective, the findings obtained, which show the use of some verbs (i.e. *spell*, *spill* and *smell*) in the adjectival function, and the alternate use of both suffixes could be possibly deemed as a form of linguistic explicitness, as proposed by Jenkins (2003). To prescriptive grammarians, they are errors but many such as Schneider (2003), Groves (2010) and Deshors et al. (2016) deemed these as innovations leading to grammatical nativisation. Moreover, raising the issue of whether or not these forms should be accepted as correct increases the readiness to accept them (Schneider, 2003).

## Pedagogical Implications

While the concern is that confusion may occur among students if both varieties of English are accepted (i.e. suffix -ed and -t), educators may opt for the overt approach when teaching English. The overt approach,

which is in contrast to the covert approach, involves teaching students the rules of grammar as a separate entity. It works by dividing the parts of speech into smaller elements prior to introducing them to students. By doing this, students will better understand and eventually understand the complete picture of the language they are studying (Abdullah & Shah, 2015). As for both suffix -ed and -t, teachers could consider adopting the top-down approach, where students will be introduced to both regular and irregular verbs prior to being exposed to the rules and generalised pattern for forming a specific word class. An alternative approach would be the bottom-up approach, where teachers will educate students on the generalised pattern of a regular or irregular verb for them to notice prior to giving step-by-step guidance and conclude with the rule that governs both suffixes. Despite the fact that the covert approach has been practised since the introduction of the Kurikulum Bersepadu Sekolah Rendah (KBSR) syllabus in the mid 1980s, students have not shown improvement in the English Language subject (Abdullah & Shah, 2015). According to Abdullah and Shah, the overt approach involves the system, elements of linguistic structures as well as analysis of text. Chung (2005) concurred that the individual's communication proficiency can be easily achieved only when he or she has mastered the grammar of a language.

Under such circumstances, teachers should be more accommodative in the use of Standard Englishes by accepting the alternate use of suffix -ed and -t among students. In fact, educators ought not to limit

themselves only to prescriptive grammar, because as mentioned by Hung (2003), cited in Bourke (2005), "the grammar of a language resides not in books but in the minds of its speakers" (p. 86). Moreover, language is also said to be a living entity that is constantly evolving, and this has always been overlooked by traditional grammar (Bourke, 2005). As such, teachers should adopt descriptive grammar by which language, in contrast to prescriptive grammar, is described according to the way it is and not how it ought to be.

Since this study has proven that Malaysian writers use both suffix -ed and -t, educators could perhaps eliminate their constant act of "glorifying" the Queen's English and welcome the use of Standard Englishes among students. It is high time Malaysian language teachers followed the language politicians' use of more established varieties of English such as Indian English and Singapore English where "adhering to native target norms is not propagated and it will be unnatural to ESL speakers" (Deshors et al., 2016). A distinction between error and innovation, that is, the acceptability of the extent of deviation from the norm (Kachru, 1982, as cited in Deshors et al., 2016) should be made clear among Malaysian educators, language politicians and stakeholders. When new grammar forms like "*spilled* milk and *spilled* oil" are accepted as the local linguistic norm and not error, production of dictionaries, grammar books and usage guides signalling the codification of a new variety of English (Schneider, 2003) is inevitable. With that, Malaysian English will gain official recognition eventually.

## CONCLUSION

This study focussed on identifying the preferred suffix variant among Malaysians when forming the participial adjective. Using the corpus-based method, this study hoped to contribute pedagogically, since educators, as mentioned by Gorlach (1999), McArthur (2001) and Gnutzmann (2005), are always concerned with the acceptance of linguistic variation as well as the variety of Englishes that should be taught to non-native learners.

While results from this study showed that Malaysian writers are indeed using both suffixes (-ed and -t), the higher frequency of occurrence of the -t variant indicated that BrE is still playing an influential role in the country. Reiterating Crystal's (1994) statement that English newspapers are reflective of linguistic identity albeit their tendency to conform to the international benchmark, the inclusion of both suffixes by Malaysian writers in news articles that has received the green light from their editors suggest that they could be conventionalised. Results from this study, unfortunately, can only be taken as a preliminary assumption because news articles ranging from 1995 to 2005 as well as from 2013 onwards were excluded as they were not made available in the online archive.

That being said, although varieties of English, as claimed by Trudgill and Hannah (2002), differ the least at the level of grammar, students' exposure to both BrE and AmE is still deemed important as through this, awareness with regard to

linguistic diversity can be developed and this, according to Bieswanger (2008), will eventually help lay the foundation for lifelong learning. As such, curriculum designers and textbook writers as well as teachers ought to realise that language is constantly evolving together with globalisation and cultures. The inclusion and use of BrE and AmE is one way to realise this; this would definitely help to accommodate and cater for the ever changing linguistic topography facing many countries, including Malaysia.

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## **Use and Linguistic Realisations of Metadiscourse Features in Business News**

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### **ABSTRACT**

Metadiscourse features are the way in which writers express their opinion and achieve not only coherence but also cohesion in their texts. Although metadiscourse features are widely employed, it is sometimes the case that writers tend to use them inappropriately, resulting in incoherent and ineffective texts. A review of the relevant literature reveals that a significant body of research has been conducted on metadiscourse features in various academic contexts. However, studies targeted at news settings are still limited. Hence, this study adapts Dafouz-Milne's model to identify the types, functions and linguistic realisations of metadiscourse features that are commonly used in business news. Quantitative data were collected from 15 business news articles from "Star Online" and "Focus Malaysia", respectively from September 2014 until June 2016. Semi-structured interviews were conducted with six business news writers individually. This paper aims to compare textual and interpersonal functions and their linguistic realisations to see whether business news in "Star Online" or "Focus Malaysia" has more engaging content to create awareness for writers.

*Keywords:* Business news, Dafouz-Milne's model, metadiscourse features, writers

### **INTRODUCTION**

Business news usually reports and explains financial news and how it affects readers. The news informs readers how the government, stock markets, money system and business world operate globally and domestically. Mencher (2011) stated that news about business had become everyone's personal business. He stated that business news ranges widely from retail and consumer products to

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investing and financial markets, the airline and automotive industries, management, corporate finance or investment banking or securities industries, the media and entertainment industries and advertising and marketing to labour and employment. Business news also includes local spot news stories, features and interpretative stories (Hudson & Rowlands, 2012).

Without access to business news, people would be isolated not only from the rest of the world but also from governments and law-makers as well as neighbouring towns and cities (Hudson & Rowlands, 2012). Currently, the media have evolved and Internet media are playing a major role in disseminating news to a wider range of readers. News networks provide coverage about what is going on in the corporate world so that people are updated on happenings in the business world (McNair, 2009). Most of the time, business news is complicated. People prefer to read other news rather than business news because its content does not appeal to them. However, good writers try to draw audience interest to the target subject (Mencher, 2011) by making reports as interesting and memorable as possible, for instance by using anecdotal examples to which readers can relate.

Business news is one of the types of news that people read the least because it uses technical terms and jargon that can be complex for the readers (Mencher, 2011). To make news reports more appealing and relevant, writers use metadiscourse features to reveal their awareness of readers and their need for elaboration, clarification,

guidance and interaction. Writers also utilise these features to make the text more reader-orientated, credible and interesting. Although metadiscourse features are employed, writers are sometimes inclined to them effectively and fail to attract the readers' attention (Khattak et al., 2003).

There seems to be a lack of appropriate guidelines in reference books, manuals or websites on journalism on how to write business news specifically (Khattak et al., 2003). All good media organisations have their house style manuals, which are referred to by thousands of newspapers, magazines, broadcast stations and public relations offices around the world (Itule & Anderson, 2008), but writers are given the flexibility either to use or not use those manuals. This may create inconsistencies that interrupt the thought and flow of ideas.

Metadiscourse features have been studied in different areas, such as translation studies, intercultural studies, gender studies and academic discourse (Hyland, 1998; Hyland, 1999; Hyland, 2004; Hyland & Tse, 2004; Intaraprawat & Steffenson, 1995). Most of these studies have placed attention on the pragmatic aspect of discourse. Metadiscourse features can be investigated in many different forms syntactically such as transitions, frame markers, endophoric markers, evidentials, code glosses, hedges, boosters, attitude markers, self-mentions and engagement markers (Hyland, 1998). Dafouz-Milne (2008) examined the role of metadiscourse markers in persuasive writing through a cross-linguistic study of two well-known newspapers. Noorian

and Biria (2010) analysed the interpersonal metadiscourse features in persuasive journalism. Thomas and Finneman (2013) researched the Leveson Inquiry from inception to conclusion of its hearing phase through journalistic metadiscourse. Kuhi and Mojood (2014) investigated the effect of cultural factors and generic conventions on the use and distribution of metadiscourse within a single genre on 60 newspaper editorials (written in English and Persian). This study was a response to the call for further investigation on metadiscourse features in business news (Dafouz-Milne, 2008; Gonzalez, 2005; Noorian & Biria, 2010) because very few studies have been conducted to examine textual and interpersonal features in business news. To date, there is no study conducted in Malaysia for metadiscourse features in news. Therefore, the aim of this study was to investigate the types, functions and linguistic realisations of metadiscourse features in business news reported in “Star Online” and “Focus Malaysia” to fill the gap in the literature.

### Research Questions

The study sought to answer the following research questions:

1. How is the use of metadiscourse features in “Star Online” similar to or different from their use in “Focus Malaysia”?
  - (a) How frequently are textual and interpersonal metadiscourse features used in business news?
  - (b) Which categories of metadiscourse features most commonly occur in business news?
  - (c) What are the functions of metadiscourse features in the rhetorical sections (i.e. introduction, body and closing)?
2. How are the linguistic realisations of metadiscourse used in “Star Online” similar to or different from those used in “Focus Malaysia”?

### Models of Metadiscourse Features

In this study, the metadiscourse features in business news (“Star Online” and “Focus Malaysia”) are identified using Dafouz-Milne’s model (2008). Writing is more than the use of basic syntactic skills of grammar and punctuation (Sanford, 2012) to communicate a message. In fact, it is a complicated activity that requires concentration and skill. The focus in writing is maturity, when students understand how sentences are connected to one another and present positive attributes, then negative aspects.

Writing is a form of communication in which writers offer information and project ideas and emotions to the readers (Sanford, 2012). Metadiscourse helps writers and readers understand how the sentences in a text are connected to one another by providing a function of the text (Dafouz-Milne, 2008). This means the writers present an argument logically by presenting the

positive attributes, then the negative aspects and lastly, the conclusion in summary. This will help readers to establish understanding (Hyland, 2005).

There are various models of metadiscourse. The models have different interpretations when it comes to metadiscourse. Williams' notion of metadiscourse (2007) focusses on the term 'metadiscourse', where he defines metadiscourse as "writing about writing." Vande-Kopple's model (1985) focusses on metadiscourse as well as function and provides examples for each category. Crismore, Markkanen and Steffensen's model (1993) is a modification of Vande-Kopple's classification of metadiscourse (1985). Hyland's model (2005) is an addition to Vande-Kopple's as well as Crismore, Markkanen and Steffensen's categorisation. Dafouz-Milne's model (2008) is concerned with the syntactic and pragmatic aspect of metadiscourse features used in editorial news.

Dafouz-Milne's model (2008) was adapted for use in this research since it has been used in editorial discourse and it is closely linked to business news. This model is comprehensive because it consists of the syntactic and pragmatic aspects of metadiscourse features. It is used to find the types of metadiscourse feature through two dimensions: textual and interpersonal. Textual metadiscourse is used to organise propositional information in ways that will be coherent for a particular audience and appropriate for a given purpose (Hyland, 1999). It is the writers'

decision to share their views and reflect the particular convention (Dafouz-Milne, 2008). Textual metadiscourse provides guidance for readers on understanding how the information is organised (Dafouz-Milne, 2008). This structure encourages the writers to provide previous information before new information is shared. Coherence, cohesion and grammar constitute the core of textual features (Hyland, 2005). These features take on a significant role in facilitating meaning construction for readers by developing connectivity or supporting points through comprehensive details. There are many categories of textual metadiscourse such as logical markers, sequencers, reminders, topicalisers, code glosses, illocutionary markers and announcements (Dafouz-Milne, 2008).

The summary of the types, categories and examples of textual metadiscourse is shown in Table 1.

Another type of metadiscourse feature is interpersonal metadiscourse. Interpersonal metadiscourse allows writers to express a perspective towards their propositional information and their readers (Hyland, 1999). It helps them to express their personality in the text and characterises the interaction they have with the readers (Hyland & Tse, 2004). For interpersonal metadiscourse, the text is written in order to communicate an intended meaning to the readers (Dafouz-Milne, 2008). This involves attitude, personality and assumptions between the writers and the readers. It also enables the writers to determine the impact they want to have on their readers

Table 1  
*Textual metadiscourse (Dafouz-Milne, 2008)*

Textual Metadiscourse	
Categories	Examples
Logical markers	
Additives	and, furthermore
Adversatives	however
Consecutives	therefore
Conclusives	finally
Sequencers	first, second
Reminders	let us return to
Topicalisers	in political terms, in the case of the . . . (NHS)
Code glosses	
Parentheses	when (as with the Tories now)
Punctuation devices	Tax evasion: It is deplored in others, but not in oneself.
Reformulators	in other words, that is, to put it simply
Exemplifiers	for example, for instance
Illocutionary markers	I propose, I hope
Announcements	there are many good reasons

(Hyland, 2005). Interpersonal features are the ways the writers interact with readers by commenting and intruding on their message as these are often a reflection of the writers' personality. Hedges, certainty markers, attributors, attitude markers and

commentaries are categories of interpersonal metadiscourse (Dafouz-Milne, 2008).

The summary of the types, categories and examples of interpersonal metadiscourse is presented in Table 2.

Table 2  
*Interpersonal metadiscourse (Dafouz-Milne, 2008)*

Interpersonal Metadiscourse	
Categories	Examples
Hedges	
Epistemic verbs	may, might
Probability	probably, perhaps
Epistemic expression	it is likely
Certainty markers	undoubtedly, clearly
Attributors	X claims that
Attitude markers	
Deontic verbs	have to
Attitudinal adverbs	unfortunately, undoubtedly
Attitudinal adjectives	it is absurd, it is surprising
Cognitive verbs	I feel, I think

Table 2 (continue)

Interpersonal Metadiscourse	
Categories	Examples
Commentaries	
Rhetorical questions	What is the future of Europe – integration or disintegration?
Direct address to readers	Dear reader
Inclusive expressions	We all believe
Personalisation	I do not want
Asides	She seemed (ironically for Spencer) not of the establishment.

In summary, Dafouz-Milne (2008) stated both textual and interpersonal features are crucial for creating a text that is both sensitive and persuasive. She also identified the correct function of each metadiscourse category. This shows that metadiscourse can link arguments and positions as well as create logical explanations when there is no solid evidence (Hyland, 2005). Writers should also show respect to readers by using the appropriate amount and type of metadiscourse to create rapport with the readers to encourage them to read on further (Sanford, 2012).

## METHODS

### Research Design and Data Collection

The research design of this study was based on the content analysis technique. This technique is commonly employed as it simply means doing a word-frequency count of words that reflect the greatest concerns (Stemler, 2001). This is because the selected words might be important in certain aspects of the setting, and this research aimed to show that such words are important not just to engage readers with a given text, but also to direct them through the text. This study

employed both quantitative and qualitative data collection methods. The corpus of business news was elicited through the quantitative data collection method. As one of the qualitative data collection methods, the semi-structured interview was used with six business news writers, three from “Star Online” and three from “Focus Malaysia”.

### Samples

“Star Online” and “Focus Malaysia” are two prominent news portals. “Star Online” is the most visited online news portal in Malaysia because the news is updated every five minutes. It has a wide readership of 1.2 million. “Star Online” differs from the Star e-paper in that some of the news that is available in “Star Online” is not available in the Star e-paper, particularly business news that is up-to-date. This is because the business news of “Star Online” is updated regularly, while only selected news is published in the Star e-paper. On the other hand, “Focus Malaysia” is an e-paper normally published on a weekly basis. The readership of “Star Online” is more than the readership of “Focus Malaysia” because “Star Online” has been in existence for 24 years, while “Focus Malaysia” has only

been operating for three years. The purpose of analysing both “Star Online” and “Focus Malaysia” was to see whether “Focus Malaysia”, which is relatively current and new, is on par in terms of quality of news reporting with “Star Online”, especially in the reporting of business news. Fifteen business news articles each from “Star Online” and “Focus Malaysia” were chosen through purposive sampling. News of similar topics was selected to compare the categories and functions of textual and interpersonal features.

### Research Procedure

Fifteen business news articles each from “Star Online” and “Focus Malaysia” from September 2014 to June 2016 were chosen through purposive sampling. News of similar topics was selected to compare the categories and functions of textual and interpersonal features. The list of the topics is shown in Appendix A.

### Data analysis

This research was carried out to determine the use of metadiscourse features used in the two online business news portals. The categories, functions and linguistic realisations of metadiscourse in business news writing were analysed using Dafouz-

Milne’s model (2008), which emphasises textual and interpersonal features.

In order to ensure validity and reliability of the research, two inter-raters were employed. One inter-rater had three years of experience in metadiscourse features, while the other had 10. The use of inter-coder reliability was to check the reliability of coding on the number of occurrences on the types and categories of metadiscourse features.

## RESULTS AND DISCUSSION

### Comparison of the Use of Metadiscourse Features in Star Online and Focus Malaysia

In this section, the findings from 15 business news articles from “Star Online” and 15 business news articles from “Focus Malaysia” are reported and discussed in an integrative manner to answer the first research question. Table 3 shows the descriptive statistics of the types of metadiscourse feature found in “Star Online” and “Focus Malaysia” business news articles. A variety of examples of metadiscourse categories are explained to show the different categories used because logical markers and sequencers are two of the most common categories in each rhetorical section.

Table 3  
*Frequency of type of metadiscourse feature in business news*

Metadiscourse Features	“Star Online”		“Focus Malaysia”	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Textual metadiscourse	301	52.71	354	41.84
Interpersonal metadiscourse	270	47.29	492	58.16
Total	571	100.00	846	100.00

From the 15 business news articles of “Star Online”, it was observed that textual metadiscourse (52.71%) was used more frequently than interpersonal metadiscourse (47.29%). However, the reverse was observed in “Focus Malaysia”. Interpersonal metadiscourse (58.16%) was used more frequently than textual metadiscourse (41.84%) in 15 business news of “Focus Malaysia”. The findings are similar to the findings of Dafouz-Milne’s research where there was almost a balance between both textual and interpersonal metadiscourse used. This means that the writers used the features to guide and acknowledge readers by emphasising interaction with them by bringing them into the text through solidarity.

To examine further the use of metadiscourse features used in the two online business news portals, the frequency and percentage of occurrence of the metadiscourse features in the introduction (first paragraph), body (subsequent

paragraphs) and closing (last paragraph) of the news articles were also analysed. The categories of metadiscourse features in “Star Online” and “Focus Malaysia” were then compared to find out which category appeared the most in the rhetorical sections. The results are shown in the tables below.

Out of 22 occurrences of metadiscourse features in 15 business news articles of “Star Online”, 27.27% of sequencers, 22.73% of logical markers, 18.18% of attitude markers, 9.09% of code glosses, 9.09% of hedges, 9.09% of attributors, and 4.55% of certainty markers were used in the introduction section. This signifies that sequencers were the most frequently used, while certainty markers were the least frequently used. One of the reasons underlying this finding may be related to the characteristic of the introduction, which aims to guide and lead readers to the rest of the story with coherence and cohesiveness. An example of a code gloss is given below.

Table 4  
*Frequency of categories of metadiscourse features in the introduction section of business news*

Categories	“Star Online”		“Focus Malaysia”	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Logical markers	5	22.73	16	40.00
Sequencers	6	27.27	7	17.50
Code glosses	2	9.09	2	5.00
Hedges	2	9.09	6	15.00
Certainty markers	1	4.55	2	5.00
Attributors	2	9.09	1	2.50
Attitude markers	4	18.18	4	10.00
Commentaries	0	0.00	2	5.00
Total	22	100.00	40	100.00

**Code Gloss.** An example of the code gloss found in the data is “like”. Its use is illustrated in Excerpt 1 below.

The government has no plan to implement capital controls like during the 1997-1998 Asean financial crisis in the face of ringgit depreciation as the situation is different, Deputy Finance Minister Datuk Chua Tee Yong said. (Excerpt 1 – Business news article 11)

The code gloss “like” is used in the middle of the sentence to help readers interpret the meaning of the words and phrases or to give an example to make the text more comprehensible for them. An example of the situation, the ASEAN financial crisis, was given to guide readers to ensure they were able to get the writer’s message.

As can be seen in Table 4, 40 occurrences of metadiscourse features were noted in the introduction section of 15 Focus Malaysia business news articles. A total of 40.00% of logical markers, 17.50% of sequencers, 15.00% of hedges, 10.00% of attitude markers, 5.00% of code glosses, 5.00% of certainty markers, 5.00% of commentaries and 2.50% of attributors appeared in this section of business news articles. This means that logical markers were the most frequently used, while attributors were the least frequently used in the introduction section of the business news articles in “Focus Malaysia”. This is because the purpose of the introduction is to present the news in a descending order of importance to

introduce continued reporting news and key sources with coherence and cohesiveness. An example of a hedge is given below.

**Hedges.** An example of hedges found in the data is “would”. Its use is illustrated in Excerpt 2 below.

Prime Minister Datuk Seri Najib Razak, who is also Finance Minister, would have us believe that Budget 2015 announced on Oct 10 is a “fiscally-responsible” budget, which invests in future fiscal and economic growth sustainability at the cost of short-term pain and adjustment. (Excerpt 2 – Business news article 1)

The hedge “would” is used in the middle of the sentence to show uncertainty of the truth of the assertion in the text. The hedge “would” is used against accuracy rather than protection against overstatement. This means that uncertainty of the facts dominates over any attempts to disguise the writers’ opinion to arouse the readers’ level of interest in the content.

In the body section, a total of 514 occurrences of metadiscourse features was used in “Star Online”. Of these occurrences, 33.46% were logical markers, 17.90% were attributors, 12.65% were sequencers, 12.45% were certainty markers, 9.92% were hedges, 5.06% were attitude markers, 4.28% were code glosses, 2.53% were commentaries and 1.75% were topicalisers. This means that logical markers were the most frequently used, whereas topicalisers

Table 5  
*Frequency of categories of metadiscourse features in the body section of the business news articles*

Categories	“Star Online”		“Focus Malaysia”	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Logical markers	172	33.46	333	42.21
Sequencers	65	12.65	35	4.44
Topicalisers	9	1.75	28	3.55
Code glosses	22	4.28	30	3.80
Illocutionary markers	0	0.00	1	0.13
Hedges	51	9.92	84	10.65
Certainty markers	64	12.45	50	6.34
Attributors	92	17.90	170	21.55
Attitude markers	26	5.06	43	5.45
Commentaries	13	2.53	15	1.90
Total	514	100.00	789	100.00

were the least frequently used in the body section of the 15 business news articles from “Star Online”. This shows that the purpose of the body section was to provide readers a smooth flow in reading the news by giving them transitions and accurate additional facts to assist them to enable better understanding of the news. Examples of sequencers in the body section are given below.

**Sequencers.** Examples of sequencers found in the data are “firstly” and “secondly”. Their use is illustrated in Excerpt 3 below.

According to Minister in the Prime Minister’s Department Datuk Seri Abdul Wahid Omar, the Government deems the initial GST rate of 6% as reasonable, firstly because it is equivalent to the current average SST rate, and secondly, it is the lowest rate

among Asean countries. (Excerpt 3 – Business news article 1)

The sequencers “firstly” and “secondly” are used here in the middle of the sentence to order the argument of the points in the text. This is to focus attention, signalling that readers now have to concentrate in order to understand the content that is about to follow i.e. the two reasons given by the authorities for their belief that the GST rate is reasonable.

In the “Focus Malaysia” articles, 789 occurrences of metadiscourse features were used in the body section. There were 42.21% logical markers, 21.55% attributors, 10.65% hedges, 6.34% certainty markers, 5.45% attitude markers, 4.44% sequencers, 3.80% code glosses, 3.55% topicalisers, 1.90% commentaries and 0.13% illocutionary markers used in this section of the business news articles. This means that logical markers were the most frequently used,

whereas illocutionary markers were the least frequently used in the body section of the business news articles from “Focus Malaysia”, suggesting that the purpose of the body section of these articles was to guide and assist readers in following the flow of the news texts. An example of an attributor is given below.

**Attributors.** An example of an attributor found in the data was “Suria Capital chief financial officer Ng Kiat Min tells FocusM”, as given in Excerpt 4 below.

Suria Capital chief financial officer Ng Kiat Min tells FocusM the Jesselton Quay project was facing a delay as the company had to come up with a proper plan for traffic management encompassing not only the project but also the city. (Excerpt 4 – Business news article 4)

In Excerpt 4, the attributor “Suria Capital chief financial officer Ng Kiat Min tells FocusM” is used at the beginning of the sentence to refer to information from the source about the plans of a company. Attributors are used to make a text persuasive in tone by emphasising the writer’s authority. By referring to information from other sources, the writer stimulates interest in readers to know more and to read on as they become convinced that the source of the information is credible.

Thirty occurrences of metadiscourse features were used in the closing section of the 15 business news articles from “Star Online”, of which, 50.00% were logical markers, 20.00% were attributors, 10.00% were certainty markers, 10.00% were attitude markers, 6.67% were code glosses and 3.33% were hedges. This means that logical markers were used the most, whereas hedges were used the least in this section. This illustrates that the purpose of the

Table 6  
*Frequency of categories of metadiscourse features in the closing section of the business news articles*

Categories	“Star Online”		“Focus Malaysia”	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Logical markers	15	50.00	16	44.44
Sequencers	0	0.00	3	8.33
Topicalisers	0	0.00	3	8.33
Code glosses	2	6.67	0	0.00
Hedges	1	3.33	2	5.56
Certainty markers	3	10.00	1	2.78
Attributors	6	20.00	6	16.67
Attitude markers	3	10.00	2	5.56
Commentaries	0	0.00	3	8.33
Total	30	100.00	36	100.00

closing section as intended by the writers was to help readers to process and evaluate the news that they had reported as well as to relate it to earlier information given in the body paragraphs. An example of a certainty marker used is given below.

**Certainty Markers.** An example of a certainty marker found in the data was “largely”. Its use is illustrated in Excerpt 5 below.

The research house noted that the more intense competition had thus far largely come from U Mobile Sdn Bhd and is expected to continue to be aggressive in 2015, as it seeks to achieve greater economies of scale for its mobile business. (Excerpt 5 – Business news article 7)

The certainty marker “largely” is used in the middle of the sentence to express total commitment to the truth value of the text about a company. They also opted for this word in order to emphasise certainty or to establish close dialogue with the readers. News must be reported with due accuracy and presented with due impartiality through the use of certainty markers. This is because it is acceptable to expect a certain degree of impreciseness to make the news clearer for the readers.

Table 6 shows that a total of 36 occurrences of metadiscourse features was used in the closing section of “Focus Malaysia”, of which 44.44% were logical markers, 16.67% were attributors, 8.33% were sequencers, 8.33% were topicalisers,

8.33% were commentaries, 5.56% were hedges, 5.56% were attitude markers and 2.78% were certainty markers. This means that logical markers were used the most, while certainty markers were used the least in this section. This is because the purpose of the closing section as used in the articles was to encourage the writers to express their intended meaning relating the ideas so that the readers could understand the texts better. An example of a topicaliser is given below.

**Topicalisers.** An example of a topicaliser detected in the data is given in Excerpt 6 below.

Amid still political hurdles for some countries, policymakers must step up structural, economic and financial reforms to build a stronger buffer against external shocks, even if this involves short-term adjustment pain.

In the near to medium term, there is a greater sense of urgency to speed up credible reforms in the goods and services market, open or liberalise markets and investment policies to foster healthy competition in trade and investment, overhaul education, strengthen healthcare services and public infrastructure as well as enhance social safety nets to shelter needy groups from the adjustment costs of liberalisation and subsidy rationalisation. (Excerpt 6 – Business news article 10)

The topicaliser “In the near to medium term” is used at the beginning of the sentence to indicate a topic shift; thus, readers are able to know that the writer is introducing a new topic within the news context. This is important because news stories are viewed positively when readers can look at the issues from a different point of view or link seemingly unrelated topics together.

### **Comparison of Linguistic Realisations of Metadiscourse Used in “Star Online” and “Focus Malaysia”**

This section discusses examples and explanation of linguistic realisations of metadiscourse features in “Star Online” and “Focus Malaysia” to answer the second research question. The linguistic realisations are explained with regard to grammatical use of metadiscourse, indication of new topics and use of metadiscourse function.

**Grammatical Use of Metadiscourse.** In Excerpt 7, the use of “and” as a logical marker at the beginning of the sentence in the first body paragraph after the introduction shows the improper grammatical use of metadiscourse. In Excerpt 8, on the other hand, “and” is used at the beginning of the sentence of the first body paragraph and it is used correctly. This shows that these features enable the text to have some elements of textual flow. This relates to focussed attention due to the concentration of mental activity because the use of logical markers helps readers to focus their concentration, absorption and temporal dissociation on the text.

And businesses, some of which are already struggling to survive in the present challenging environment, will definitely come under heavy pressure because of the prices increases. (Excerpt 7 – “Star Online”, Business news article 1)

The budget has outlined wide-ranging strategies and initiatives on strengthening economic growth, sustaining investment momentum, enhancing fiscal governance, developing human capital and entrepreneurship, advancing the bumiputera agenda, increasing women participation and developing national youth transformation. (Excerpt 8 – “Focus Malaysia”, Business news article 1)

**Indication of New Topics.** The topicaliser “in particular” in Excerpt 9 is used in the middle of the sentence but there is no clear shift indication of a new topic in the news, which could cause confusion among readers. However, in Excerpt 10, “to make matters worse” is used as a topicaliser at the beginning of the sentence to show a clear indication that there is a shift to a new topic. These features are important because they are connected to durability, which combines the concepts related to the readers’ likelihood of returning and evaluating the level of success of the news report. This is important because news stories are viewed positively when readers can look at issues from a different point of view or link seemingly unrelated topics together.

Officials in Washington and London in particular were eager to start lifting interest rates in part because with rates near zero they have to resort back to unconventional policies to counter any new downturn. (Excerpt 9 – “Star Online”, Business news article 8)

To make matters worse, Bursa Malaysia has seen net outflow of foreign funds for 10 straight weeks. (Excerpt 10 – “Focus Malaysia”, Business news article 9)

**Use of Metadiscourse Function.** In Excerpt 11, “engineers from Toshiba, IHI Corp and Hyundai Group – the consortium that won the engineering, procurement and construction contract for the project – were already” is used as a code gloss in the middle of the sentence, but it is used incorrectly. In Excerpt 12, “US\$52.85 (RM192.37)” is used as a code gloss in the middle of the sentence, and it is used correctly. The function of code glosses is to explain, rephrase or exemplify textual material. The code gloss is used incorrectly in Excerpt 11 because although there is a signal of restatement of complicated terms, it is not clear, and readers have to read the sentence many times to comprehend the term. Nevertheless, in Excerpt 12, the code gloss is used in correct function as from reading the sentence, readers will know that the conversion of US\$52.85 to Malaysian currency is RM192.37, and they would understand the term almost immediately. This links to durability for the readers to

evaluate the overall experience of reading news on the news portal and perceiving its success as well as whether they would recommend the news site to others.

According to sources, engineers from Toshiba, IHI Corp and Hyundai Group – the consortium that won the engineering, procurement and construction contract for the project – were already at the headquarters of TNB as part of the latter’s assessment of the project. (Excerpt 11 – “Star Online”, Business news article 15)

According to Central Appalachian Coal (CAPP) futures, coal prices declined by some 17.9% to US\$52.85 (RM192.37) per tonne on March 24 from a high of US\$64.40 in August last year. (Excerpt 12 – “Focus Malaysia”, Business news article 15)

## CONCLUSION

The findings of this study illustrated that metadiscourse plays an essential role in business news writing. From the data, the findings showed that both textual and interpersonal features were used more frequently by “Focus Malaysia” writers than by “Star Online” writers. This shows that the emphasis of “Focus Malaysia” is not only on precision and accuracy of information but also on honesty, humility and proper caution in presenting facts (Laane, 2010). Metadiscourse tends to be used primarily to

convey the message precisely and accurately in “Star Online”. However, for “Focus Malaysia” writers, metadiscourse is used primarily to encourage readers to engage with the text. Business news writers would be unable to formulate statements creating different points of view or describing new information through negotiation and persuasion of information without the presence of metadiscourse. Since textual and interpersonal features are important in business news, it is the most significant resource with a variety of realisations that the writers have to acquire to reflect their professional persona and communicate with their readers. It is believed that there should be a mixture of textual and interpersonal features in business news writing because as much as the content needs to be specific so that the message is conveyed clearly, some offensive remarks can be disarmed in order to establish a relationship with readers. Hence, it is pertinent to create awareness among the writers on which metadiscourse categories can be included in the news. These categories would assist them to use the correct language, conventions and functions efficiently and effectively. The writers will also then be able to record and report events in an orderly manner to enable readers to know what happened as soon as the story begins to unfold.

Further research into this topic can focus on investigation into the use and importance of metadiscourse features in other types of news writing, apart from business news. In this regard, identifying the use of metadiscourse features is essential

in journalism courses. This study can be extended to compare and contrast the research with local professionals to evaluate whether the use of metadiscourse features in other types of news writing is able to meet the demands of the news industry.

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**APPENDIX**

## List of Business News Topics

Number	Business News Topics	
	“Star Online”	“Focus Malaysia”
1	Bracing for Tough Times	Bracing for Pain and Adjustments
2	SBC Plans New Property Launches	Suria Capital Sees End to Jesselton Quay Hiccup
3	Badlishah Takes Charge of Malaysia Airports	Challenging Tasks for New MAHB MD
4	MMS Ventures Looks to Bounce Back	Sunny Outlook for MMS Ventures, Elsoft Research
5	Sime Darby JV Gets RM58m Tractors Deal from Westports	Sime Darby’s Puzzling Deals
6	Oil and Gas Stocks Hit by Impairments and Narrow Margins	Yinson Increases Assets Despite Falling Oil Prices
7	2015 Good Year for Malaysian Mobile Phone Industry	Competition Hots Up, for Mobile Players
8	Central Bankers May Have No Quick Fix As Markets Swoon, Economy Weakens	Just Fix the Economy
9	EPF Emerges As a Major Shareholder of Yinson	Yinson’s ‘Costly’ Placement Exercise
10	KLCI, Key Asian Markets Slide on Grexit Woes	Asia Ready for Grex
11	Malaysia Has No Plan for Capital Controls, Says Chua	Capital Controls Not the Solution
12	Now is the Best Time to Buy Gold	Dazzling Outlook for Gold Investment
13	EPF Achieves Strong Growth in Investment Income	Net Buyer EPF Helps Lift KLCI
14	Heavy Price to Pay If TNB Deal Not Transparent	Be Transparent on Edra Sale
15	TNB Takes Over Project 3B	No Joy for TNB from Low Coal Prices



## **Organisation and Move Structure in the Results and Discussion Chapter in Malaysian Undergraduates' Final-Year Projects**

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### **ABSTRACT**

Genre analysis studies on academic writing are mostly limited to analysis of articles. There is need for studies on undergraduate students' Final-Year Projects in the context of Malaysia. This study presents an analysis of 10 Final-Year Projects of English Language by final-year undergraduate students in a public university in Malaysia. Drawing on Yang and Allison's Moves and Steps model in the Results and Discussion sections, this study investigates the move structures used by the final-year undergraduates in their Results and Discussion chapters. The qualitative method was followed to collect and analyse the data. The data were collected purposively from Bachelor of Arts (English Language) students. The samples were analysed thematically by the researchers. Conclusions were drawn based on the rhetorical moves presented by the undergraduates in their Results and Discussion chapters. It was found that the moves most used were 'Reporting results' and 'Commenting on results'. The frequencies of both moves were higher compared with the frequency of 'Preparatory/Background information' and 'Summarising results'. The findings are expected to guide lecturers in designing instructional materials for teaching academic writing that focus on rhetorical structures and to raise students' consciousness of the structure of a well-written Results and Discussion chapter.

*Keywords:* ESL learners, final-year projects, genre, move structure, organisation, results and discussion chapter

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### **INTRODUCTION**

Malaysian tertiary-level learners lack the necessary writing skills in the English language (Nambiar, 2007). This can place considerable stress on these learners, particularly when they are required to write a Final-Year Project (FYP) to fulfil their respective programme requirement.

Previous research shows that Malaysian undergraduate students find it difficult to report their results and interpret them (Nguyen & Pramoolsook, 2015). They often face difficulties in organising their results and discussion. The discussion section seems to be the most troublesome among the different sections of an article for students to write (Dudley-Evans, 1986, as cited in Amirian, Kassaian, & Tavakoli, 2008).

In recent years, the study of the academic genre has become the focus of English for Specific Purposes (ESP) and English for Academic Purposes (EAP) researchers due to its pedagogical implications. The researchers have attempted, particularly, to investigate how texts can be distinguished by rhetorical structure according to the sequence of moves and steps. John Swales, the pioneer of move analysis, defines move as “a discoursal or rhetorical unit that performs a coherent communicative function in a written or spoken discourse” (Swales, 2004, p. 228).

It is widely agreed that move “performs a coherent communicative function” in a text (Swales, 2004, p. 228). Each move carries its own communicative purpose and together with other moves, completes the communicative purpose of the whole text. Move structure of a text can be distinguished by referring to an analytical framework. In this study, an analytical model was used to help in analysing the communicative purposes of Results and Discussion chapter of Final-Year Projects.

The term ‘obligatory’ refers to the compulsory move employed by the undergraduates in reporting their results

and presenting their discussion. In this study, it depended on the frequency of occurrence of the moves and steps. Moves with the highest frequency were regarded as obligatory moves.

Conceptually, organisation of discourse can be defined as “the appropriate ordering of proofs within a discourse” (Crowley, 1994). In this study, organisation involves the way the content in the Results and Discussion chapter is arranged in logical order, starting with the introduction, progressing on to the results, followed by the discussion together with interpretation, comparisons, reasons and assumptions of the findings and ending with the conclusion.

### **Objective**

This study was primarily proposed to identify Malaysian ESL undergraduates’ ability to organise their Results and Discussion with regard to the rhetorical structure of the Results and Discussion chapter in their Final-Year Projects, based on an adapted Yang and Allison (2003) Model of Moves and Steps in presenting the Results and Discussion chapter. This is the first study on the Results and Discussion chapter in Final-Year Projects of English language using this adapted Yang and Allison (2003) Model of Moves and Steps for the Results and Discussion sections. This study is novel in that it applies the Yang and Allison (2003) analytical framework to an unexplored genre, which is undergraduates’ Final-Year Project, specifically the Results and Discussion chapter of their projects. The main objectives of this study were:

1. To explore the ways the undergraduates organised their Results and Discussion chapters, and
2. To determine the frequency of the move structures in the Results and Discussion chapters.

**Research Questions**

In order to achieve these objectives, the following research questions were posed:

1. How are the results and discussion organised in the Results and Discussion chapter of the selected Final-Year Projects?
2. What are the frequent move structures of the Results and Discussion chapter of the selected Final-Year Projects, based on an adapted Yang and Allison (2003) Model of Moves and Steps?

**Model of Moves and Steps**

Yang and Allison (2003) proposed representative templates of a two-level rhetorical structure (move and step) for

different sections of a research article reporting on Applied Linguistics: Introduction, Methodology, Results, Discussion and Conclusion. The templates were derived from Swales’ (1990) Create a Research Space (CARS) model in order to produce appropriate models for different sections of written discourse on applied linguistics. The templates for the Results and Discussion sections were adapted in this study. Both templates were combined together as the Results and Discussion sections in the undergraduate Final-Year Project had combined ‘Results and Discussion’ as one heading to be presented in one chapter. This was due to the frequent occurrence of combined Results and Discussion sections in Chapter 4, as confirmed by the second model provided by Murison and Webb (1991) (Figure 1).

The original models for the Results section comprised six moves and those for the Discussion section comprised seven moves. The moves in the Discussion section match the initial moves in the Results section except for ‘Summarising results’ and another new move, ‘Summarising the study’ (Figure 2).

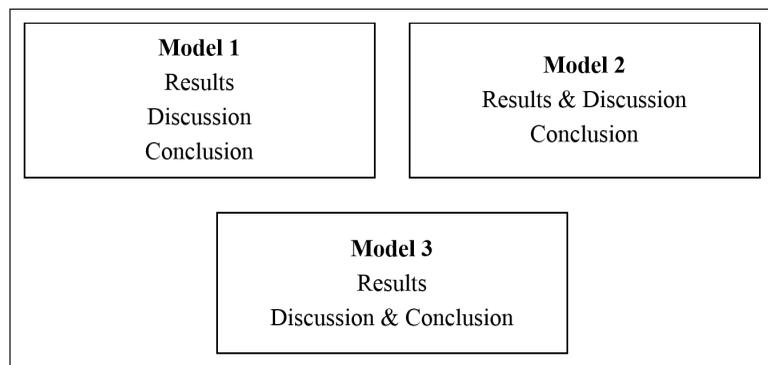


Figure 1. Organisation of results and discussion (Murison & Webb, 1991)

Results section	Discussion section
Move 1: Preparatory information	Move 1: Background information
Move 2: Reporting results	Move 2: Reporting results
Move 3: Commenting on results	Move 3: Summarising results
Step 1: Interpreting results	Move 4: Commenting on results
Step 2: Comparing results with literature	Step 1: Interpreting results
Step 3: Evaluating results	Step 2: Comparing results with literature
Step 4: Accounting for results	Step 3: Accounting for results
Move 4: Summarising results	Step 4: Evaluating results
Move 5: Evaluating the study	Move 5: Summarising the study
Step 1: Indicating limitations	Move 6: Evaluating the study
Step 2: Indicating significance/advantage	Step 1: Indicating limitations
Move 6: Deductions from the research	Step 2: Indicating significance/advantage
Step 1: Recommending further research	Step 3: Evaluating methodology
	Move 7: Deductions from the research
	Step 1: Making suggestions
	Step 2: Recommending further research
	Step 3: Drawing pedagogic implications

Figure 2. Original version of Yang and Allison's (2003) moves and steps in the results and discussion sections

Taking note of the similarity between the respective moves, the present study attempted to adapt these two frameworks for use in a combined Results and Discussion

chapter. Our new adapted framework for analysing the combined sections is illustrated in Figure 3.

Move 1: Preparatory/Background information
Move 2: Reporting results
Move 3: Summarising results
Move 4: Commenting on results
Step 1: Interpreting results
Step 2: Comparing results with literature
Step 3: Accounting for results
Step 4: Evaluating results
Move 5: Summarising the study
Move 6: Evaluating the study
Step 1: Indicating limitations
Step 2: Indicating significance/advantage
Step 3: Evaluating methodology
Move 7: Deduction from the research
Step 1: Making suggestions
Step 2: Recommending further research
Step 3: Drawing pedagogic implications

Figure 3. Adapted Yang and Allison (2003) model for results and discussion chapter

The adapted model comprises seven moves with specific communicative purposes. Moves 4, 6 and 7 are broken down into several steps. These moves and steps

are often signalled by linguistics cues. Table 1 shows some of the linguistics features signalling the moves and steps in the Results and Discussion chapter.

Table 1  
*Examples of linguistics features signalling 'Moves and Steps' in the results and discussion chapter*

Moves/Steps	Example
Move 1: Preparatory/Background information	will be presented, our aim
Move 2: Reporting results	The results indicate/show
Move 3: Summarising results	To sum up, It can be concluded
Move 4: Commenting on results	
Step 1: Interpreting results	The results suggest
Step 2: Comparing results with literature	The findings are similar with those in Bhatia (1990)
Step 3: Accounting for results	This is caused by
Step 4: Evaluating results	The results are rather vague and not clear
Move 5: Summarising the study	In summary
Move 6: Evaluating the study	The study is . . .
Step 1: Indicating limitations	However, a larger sample is needed
Step 2: Indicating significance/advantage	The study provides benefits/new insight
Step 3: Evaluating methodology	It is questionable whether the experimental data
Move 7: Deduction from the research	
Step 1: Making suggestions	It may be better to use other methods
Step 2: Recommending further research	Further research could focus on
Step 3: Drawing pedagogic implications	The findings may have some implications on

### Previous Studies

Many studies of move analysis of academic writing have been conducted mostly on research articles (RA) and a few on postgraduate theses. Studies on the structure of RAs in various disciplines have so far concentrated on RA as a whole (Kanoksilapatham, 2005; Nwogu, 1997) and different sections of an article such as the Abstract (Golebiowski, 2009; Lores, 2004; Martin, 2003; Samraj, 2005), Introduction (Ahamad & Yusof, 2012; Loi, 2010; Joseph, Lim, & Nor, 2014; Kanoksilapatham, 2007;

Samraj, 2002, 2005; Swales, 1990), Results (Brett, 1994; Bruce, 2009; Lim, 2010; Yang & Allison, 2003), Discussion (Basturkmen, 2009, 2012; Fallahi & Erzi, 2003; Holmes, 1997; Hopkins & Dudley-Evans, 1988; Le & Harrington, 2015; Parkinson, 2011; Peacock, 2002; Yang & Allison, 2003) and Conclusion (Yang & Allison, 2003). Despite the remarkable number of studies on RAs, a few move-based studies have been conducted on postgraduate theses in different sections, such as the Introduction (Lim, 2014; Peters, 2011; Samraj, 2008; Soler-

Monreal, Carbonell-Olivares & Gil-Salom, 2011), Literature Review (Soler-Monreal, 2015) and Discussion (Basturkmen, 2009; Hopkins & Dudley-Evans, 1988).

Some studies have been conducted on rhetorical moves of the Results and Discussion sections using Yang and Allison's (2003) framework. To offer an example, Chen and Kuo (2012) developed new coding schemes of moves and steps for analysing the results and discussion based on Yang and Allison's (2003) study. They integrated and modified the moves and steps to make them consistent and appropriate for a number of theses. The coding scheme was then used to analyse a corpus of 20 Master's theses in Applied Linguistics. The findings showed that some moves/steps in the Results section can overlap others in the Discussion or Conclusion sections. The major rhetorical move for the Results section is reporting the major findings, while the most important moves/steps in the Discussion section are interpreting results, accounting for results and comparing the obtained results with those of related literature.

Le and Harrington (2015) analysed the word clusters used to comment on results in the Discussion section of Applied Linguistics quantitative research articles based on Yang and Allison's (2003) move of Commenting on results. The study provided a detailed list of clusters used in three steps of the move: Interpreting results, Comparing results and Accounting for results. The study report was in contrast to Basturkmen's (2009), who stated, "Interpreting results

and Accounting for results were realised by different clusters and should not be conflated" (p. 54). The study also extended and refined the four-step model presented by Yang and Allison (2003).

Undergraduate Final-Year Projects have not gained much attention from previous researchers. There have been no investigation into the structure of undergraduates' Final-Year Project. Only Parkinson (2011) conducted a study on the Discussion section of ESL undergraduates' Physics laboratory reports. The scarcity of the genre in analysis studies on undergraduates' research Final-Year Projects in various ESL settings has led to a growing interest in analysing this genre. Therefore, there is a need for studies on undergraduate students' Final-Year Projects in the context of Malaysia.

## METHOD

This study is an in-depth exploration of Malaysian ESL undergraduates' writing ability as seen in their Final-Year Projects. A qualitative approach with the purposeful sampling method was employed to extract thick and rich data. According to Creswell (2014), the central phenomenon can be defined by purposively selecting the samples or participants. Onwuegbuzie and Leech (2007) suggested that the samples size in a qualitative study should not be too large because it would be difficult to extract thick and rich data (as cited by Gray, 2009). For this reason, only 10 Results and Discussion chapters of Final-Year Projects written by Bachelor of Arts English Language final-

year students from a public university in Malaysia were selected with the writers' consent. The organisation of the 10 Results and Discussion chapters was analysed based on the adapted Yang and Allison (2003) model for the Results and Discussion chapter shown in Figure 2. The analysis was conducted thematically by the first author. The moves and steps were defined, coded and recorded. The average frequency for each move and step was calculated and tabulated (Table 2).

## RESULTS AND DISCUSSION

The data were analysed based on an adapted model of Yang and Allison's (2003) model for the Results and Discussion chapter for their organisation and move structure. The results are presented here in frequency.

### Organisation

The analysis revealed that most of the samples reflected the influence of the three-part structure of an academic essay: Opening, Body and Closing. All the samples had a Chapter Introduction, the opening (also known as preambles) paragraphs that prepare the reader for the thesis before moving on to the results and discussion as seen in Example 1 below.

This chapter will present the data gathered from this study. In addition, this chapter also discusses and compares the results of the current study with the previous literatures within this field. (Example 1, S7)

However, the Chapter Summary/ Conclusion section that ends the Results and Discussion chapter occurred in only five samples (Example 2). The results and discussion section in the other samples were ended rather abruptly without any closing. This shows that the writers had failed to provide their readers with overall remarks to summarise and close their report and presentation of the results and discussion (Example 3).

This chapter discussed the findings from the analysis of the Vocabulary Knowledge Scale pre-test and post-test. The results showed that the Read Plus treatment has positive effect and it influence the vocabulary acquisition of the experimental group. Evidentials were the mean scores of the experimental group for the post-test is significantly higher than the pre-test. Meanwhile, there is no significant difference for the mean scores of the control group. The interview done also revealed that the students has positive perceptions on the Read Plus strategy. (Example 2)

Based on the table shown above, it is clearly showed that the strategy of 'Proxy Questioning' is frequently used in the radio talk show. This shows the usage of proxy question which used by the host in the radio talk show in producing more auxiliary information from the expert. This helps the topic

discussed be clearer and understood able by the ‘private’ caller as well as the ‘public’ audiences. (Example 3, S8)

Based on the results, the Chapter Introduction can be considered as a part of Move 1 while the Chapter Summary/ Conclusion could be a new move (Table 1). This presentation of the moves was similar with that of Nguyen and Pramoolsook (2015) and Chen and Kuo (2012).

**Moves Structure**

The frequency of moves and steps occurring in the samples are shown in Table 2. The moves are indicated as M and the steps, as S. The samples are represented by S1-S10.

Based on Table 2, only M1, M2, M3 and M4 were identified in the samples, while M5, M6 and M7 were not present in the samples. These results revealed that the writers constructed their Results and Discussion chapter according to their perceived communicative purposes. The

Table 2  
*Frequency of move and steps in the results and discussion chapter*

Moves and Steps	Sample										Mean	Total	
	1	2	3	4	5	6	7	8	9	10			
New Move Chapter Introduction (Preamble)*						1						1	10
Move 1 Preparation/Background information	4	2	6	4	2	4	4	1	9	2	3.8	38	
Move 2 Reporting results	20	24	21	36	34	19	22	28	17	12	23.3	233	
Move 3 Summarising results	0	0	4	1	3	4	2	0	0	1	1.5	15	
Move 4 Commenting on results													
Step 1 Interpreting results	6	2	8	10	15	13	8	11	6	6	8.5	85	
Step 2 Comparing results with literature	16	0	5	13	2	1	5	6	2	2	5.2	52	
Step 3 Accounting for results	2	0	0	2	2	4	3	0	1	10	2.4	24	
Step 4 Evaluating results	0	0	0	0	0	0	0	0	0	2	0.2	2	
Move 5 Summarising study						0					0	0	
Move 6 Evaluating the study						0					0	0	
Move 7 Deductions from the research						0					0	0	
New Move Chapter Summary (Conclusion)*	0	1	1	1	1	1	0	0	0	0	0.5	5	

\*newly identified moves

three final moves were not appropriate for the Results and Discussion chapter of Final-Year Projects as Yang and Allison (2003) mentioned in their study, “The appearance of the three final moves in Discussion is often influenced by whether there is a subsequent Conclusion or Pedagogic Implication section”. The final three moves are more appropriate for the Conclusion chapter of the Final-Year Projects.

As can be seen in the results, M2 had the highest average frequency of 23.3, occurring in all samples, followed by M4 with 16.3. These results are consistent with the findings of previous studies (Chen & Kuo, 2012; Nguyen & Pramoolsook, 2015). These two moves are obligatory for a Results and Discussion chapter. Example 4 shows how the undergraduates employed M2 in presenting their results by providing statistics and examples:

Table 4.1 shows the summary of the percentages of Moves in the abstracts of Linguistic and Literature. The results showed that the Linguistic students had the highest frequency of move for Move 2 (100%) followed by Move 4 (93.3%) and Move 3(80%) respectively. (Example 4, S4)

Step M4S1 of M4 had the highest frequency and was presented in all the samples. The second most frequent step was M4S2, which occurred in nine samples, followed by M4S3, with an average frequency of 2.4. The final step of M4, M4S4,

was missing in nine samples, indicating that almost all the undergraduates had failed to deduct the strengths and limitations of their studies. Based on Yang and Allison (2013), this step is where writers provide a claim about the generalisability of their results. However, this step never occurred in any of Chen and Kuo’s (2012) samples, which may suggest that it may not really be required as part of the structure of the Results and Discussion chapter. Examples 5, 6, 7 and 8 show how the undergraduates make general claims from their results (Example 5), compare and support their results with those of previous studies (Example 6), suggest reasons (Example 7) and provide generalisation, strengths and limitations of the results (Example 8) in their Results and Discussion chapters, respectively:

The examples that are found on the former Prime Minister, Tun Dr. Mahathir Mohamad serve one purpose which is to prove that the current Prime Minister is a failure as a Prime Minister or unfit to be one. (Example 5, S5)

Previous research done by Al-Zubaidi indicated this move as 4.15% of the present corpus, causing this to be considered as optional move because of its low frequency detected in the texts analysed. This study also regarded this move as optional as the percentage of occurrence was 60%. (Example 6, S1)

This is probably due to the fact that the economics research paper mainly uses a more complex type of analytical tools, making it important for the discussion section to report the findings before commenting on the results. (Example 7, S10)

However, it should be noted that the linguistic field uses a more standard way of closing its discussion section i.e. by evaluating the study, compared to the economics field where mostly ended the discussion section while still commenting on results. (Example 8, S10)

The third most frequent move was M1, with average frequency of 3.8; this move was observed in all the samples. This illustrated that the undergraduates had attempted to provide background information, explain how their results and discussion were presented and recapitulate the research questions, aims, theory or method used in their Results and Discussion chapters. Example 9 shows an example of how the undergraduate applied this move in the Results and Discussion chapters:

One sample t-test was done to prove that they have low proficiency level as compared to the standard. This is one of the objectives in this research which is to see whether they are proficient in English as a Second Language as compared to the standard level. (Example 9, S3)

Step M3 obtained the lowest frequency in the Results and Discussion chapters, occurring in only six samples. Example 10 gives an example of how the undergraduates concluded their results:

It can be concluded that both newspaper are strongly disagree and are condemning the actions carried out by ISIS in every aspect and in all extent. (Example 10, S6)

Based on the results, M1 and M3 were optional moves. This is similar to the findings of Nguyen and Pramoolsook (2015), which identified M1 as a conventional move for the combined Result-Discussion chapter of Vietnamese students' Master's theses. It can be concluded that the moves in the combined Results and Discussion chapter had four compulsory steps, M2 (Reporting results), M4S1 (Interpreting results), M4S2 (Comparing results with previous studies) and M4S3 (Accounting for results), and two optional steps, M1 (Chapter introduction/ Preparatory and Background information) and M3 (Summarising results).

## CONCLUSION

This study presented the analysis of rhetorical moves of the combined Results and Discussion chapter of 10 Final-Year Projects written by BA English Language students. This is the first move structure analysis of the Results and Discussion chapter of undergraduates' Final-Year Projects based on Yang and Allison's (2003) analytical framework.

Based on an adapted framework by Yang and Allison (2003), the analysis revealed that the undergraduates lacked the essential knowledge of the structure of a good Results and Discussion chapter. The undergraduates failed to construct excellent organisation of the Results and Discussion chapter according to the three-part structure of an academic essay. Besides that, it was found that the framework needed to be refined and improved in order to be more appropriate and systemic to the genre. The moves/steps that incorporate the communicative functions of a combined Results and Discussion chapter should be added to the framework and those inappropriate moves/steps need to be removed.

The findings are expected to guide lecturers in designing instructional materials for teaching academic writing that focus on rhetorical structures and to raise students' consciousness of the structure of an excellent Results and Discussion chapter. Other researchers have also suggested that the model be improved according to the communicative purposes of the desired genre to be studied.

Further studies are required to confirm the present results. A comparison of lecturers' expectations and students' perceptions of a good Results and Discussion chapter would result in insightful findings. Comparing the samples with different frameworks would discover more accurate data. Comparing Results and Discussion chapters written

by ESL and native undergraduates would produce interesting findings as well. These are some recommendations for further study that can contribute to better research reporting in Applied Linguistics. The findings from forthcoming studies will also improve on these findings as well as the framework.

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## **Incorporating Critical Thinking: Teaching Strategies in an English Language Programme**

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### **ABSTRACT**

Critical thinking plays a vital role in enhancing the quality of students and education all over the world. Thus, educators need to be able to provide a critical thinking and learning environment in the classroom. This research centres on the critical thinking application in the classroom for the English Language programme in the Academy of Language Studies (ALS) UiTM Shah Alam – English for Professional Communication (LG240). This study aims to investigate how English lecturers and students in the ALS perceive their critical thinking application in class. Additionally, the study investigates if there is a significant difference between the perception of these two groups regarding critical thinking application in the classroom. The study adapts a framework that focusses on seven dimensions of critical thinking: analysing, applying standards, discriminating, information seeking, logical reasoning, predicting and transforming knowledge. The findings reveal that there was only one dimension that showed a significant difference between the lecturers and the students' perception of critical thinking application in the classroom, that is, 'transforming knowledge'. From this study, it can be generally concluded that both lecturers and students in the ALS share the same perception of the application of critical thinking in their classroom.

*Keywords:* Critical thinking, lecturer's perception, students' perception, seven dimensions of critical thinking

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### **INTRODUCTION**

Critical thinking has long been firmly rooted as a special ability of mankind, promoted fervently by the Greek philosophers like Socrates, Plato and Aristotle since 350

BC. Termed reflective thought by Dewey (1910), it involves dynamic, tireless and watchful thought of any “belief or supposed form of knowledge” as well as the intended conclusion, a part of which echoes the essentials of meaningful thinking that separate a thinking man from another supposedly thinking man. Critical thinking offers thinkers multiple options before arriving at a decision, a process claimed to be “complicated” (Özkan-Akan, 2003) which needs an educator-student continuous pursuit of discovery, seen therefore as “an aspiration”, rather than a skill (Brown & Freeman, as cited in McCrae, 2011). Looking at the many crucial elements involved in critical thinking, there is no doubt that this skill should be promoted in classrooms to develop critical thinkers among tertiary students.

### **Definition of Critical Thinking**

The centuries-long discussion of critical thinking has yielded an amalgamation of definitions for this activity, with Socrates’ emphasis on the vitality of having disciplined questioning, developing new perspectives, revealing biases and distortion in thought (as cited in Paul & Elder, 2014) being the foundation on which the terms critical thinking and reflective thought are laid today. Lau (2011) proposed that critical thinking was the act of considering “obviously and soundly,” an activity that is done “unequivocally and deliberately... taking after the tenets of rationale and logical thinking, in addition to other things”. He further emphasised that creative thinking was

equally important as critical thinking when searching for possible solutions to problems. Cottrell (2011) defined critical thinking as “a complex process of deliberation” that involved among other skills, the ability to recognise “other individuals’ positions, contentions and conclusions,” assess “the proof for other perspectives” and fairly ponder “contradicting arguments and proof”. Reiterating Ennis (1987), critical thinking, according to Cottrell (2011), permits constructive skepticism and doubt that can lead people to making better decisions.

In addition to the definitions above, critical thinking can also be defined as “the art of examining and assessing thinking with a view to enhancing it” (Paul & Elder, 2001), an art that they claimed can be learnt notwithstanding the rigorous mental practice and hard work it demands. Ennis (1996) simply defined critical thinking as thinking sensibly and brilliantly as to determine “what to accept or do” (p. 1), suggesting open-mindedness and mindfulness as the vital characteristics a critical thinker must possess. Sharing a similar view, Tittle (n. d.) defined it as the “judicious reasoning about what to believe, and therefore, what to do”, assuming that people act according to their beliefs.

### **Seven Dimensions of Critical Thinking**

The dimensions of critical thinking originally developed by Scheffer and Rubenfeld (2000) list 17 dimensions of critical thinking, focussing on the nursing field. This paper, however, adapts only

seven of the 17 dimensions with the English classroom as the focus of the study. Table 1 lists the seven dimensions and describes each.

Table 1  
*Adaptation of Scheffer and Rubenfeld's 17 dimensions of critical thinking in nursing (2000)*

Dimensions	Description
Analysing	Isolating or breaking an entire whole into parts to discover their nature, function, and connections
Applying standards	Judging as indicated by established individual, expert or social rules or criteria
Discriminating	Perceiving contrasts and similarities among things or circumstances and recognising precisely as to categorise or rank
Information seeking	Searching for proof, truths or information by recognising important sources and assembling objectives
Logical reasoning	Drawing inferences or conclusions that are bolstered or legitimised by evidence
Predicting	Imagining a plan and its outcomes
Transforming knowledge	Changing or concerting the condition, nature or form or function of concepts among contexts

### **Incorporating Critical Thinking in Teaching - The Reasons**

Mahyuddin, Pihie, Elias, and Konting (2004) referred to demonstrating thinking capacities unequivocally as a subject by itself that educators and instructive project coordinators should consider. As stated by Ten Dam and Volman (2004), direction improves the reasoning skill of students. Courses concentrating on thought coordination, crosswise over controls and an interdisciplinary approach are probably going to enhance students' critical thinking. Matnor (as cited in Nagappan, 2012), highlighted that instructors needed to show thinking aptitude to shape students into becoming deduction pioneers. Sternberg (2003) conceded that instructive organisations ought to concentrate on urging

students to think critically and brilliantly. With easy access to information in this age of the Internet, students who have not received instruction on how to think critically can be deluded or confused by the volume of information available in cyberspace on any one subject.

Kennedy (1991) discovered that thinking and reasoning were not effectively learnt by students. For subjects like Mathematics that deals with numbers and calculation, they may process well, but they experience issues when it comes to understanding more unpredictable numerical operations. They can utilise dialect well, but they get to be risky to protect their perspectives. Thomas (1999) imagined that most schools and colleges were usually predictable as far as arrangement of exercises goes. The

exercises can be anticipated by the students and consequently, lessons become less exciting for them. However, when students cannot foresee what is to come, for example, in the next exercise or lesson, they would look forward to learning sessions with more concentration and consideration.

### **Teaching Strategies for Critical Thinking**

Paul and Elder (2008, 2009; as cited in Kokkidou, 2013) outlined a few proposals to impart critical thinking in the classroom. Instructors can promote the critical thinking process in the classroom by showing students how to evaluate their speaking and listening, planning tests that can help students enhance their reasoning capacity, making coursework exclusively for the students, clarifying the key ideas of the course unequivocally during the beginning of the lesson, utilising class time for students to work on thinking within the context and helping undergraduates see all substance as an arrangement of interconnected thoughts.

Mahyuddin et al. (2004) proposed that reading comprehension ought to incorporate aptitude for, for example, drawing inferences, making predictions and checking one's own comprehension of the composed materials. In this regard, there ought to be more uses of assignments that request students to analyse more and portray less as this encourages critical thinking among learners. Additionally, giving input on individual students' written work can improve their basic aptitude for

deduction (Shim & Walczak, 2012). Class presentations, dissemination of challenging questions and their consolation in applying ideas taught in the course also need to be encouraged by instructors to guarantee the effectiveness of the skill of critical thinking among students.

Educators can instil freedom of thought and confidence in their students. This is possible by having students think about their own thoughts and examine the issues and arrangements as opposed to having them talk about the ideas found in texts (Ten Dam & Volman, 2004). Ten Dam and Volman (2004) added that thinking should be included in lessons by allowing classroom associations. This can give students a chance to gain experience and aptitude for considering issues from different viewpoints and identifying the primary issues in an argument. From preparing lessons to giving students their homework, educators need to consider many factors in incorporating critical thinking in the classroom. Motivation and feedback also play a big role as these have an impact on students.

### **Preparation for the Educators**

Educators who have definite information on critical thinking capacity and an appreciation of how to channel this into lessons should be aware that students can be trained to think critically and creatively. (Choy & Cheah, 2009). Educators should be exposed to high-level thinking skills, such as illuminating, examining, expressing opinion, making choices and solving and

arranging problems as well as to low-level thinking skills that do not require wide and significant thought (Mahyuddin et al., 2004). Cubukcu (2006) assumed that with the objective of encouraging the growth of thinking skills, future educators should endeavour to aid students in practising these essential thinking skills in each course they would be teaching.

Assaf (2009) concurred that teachers should be given sufficient time to be trained well to build up students' scholarly abilities. There ought to be an established programme catering for pre-benefit and in-administration educators to procure the practices and skills to upgrade students' performance and development. In correlation, while educator training programmes that train thinking ability do exist, it was discovered that educators who joined such programmes were most likely not going to use their insight in the classroom because of time constraints (Scott, Callahan, & Urquhart as cited in Slatter, 2009). Slatter also believed that preparation for instructors, while prescribed, will not necessarily lead to classroom practice of that preparation. In this way, instructors must prepare themselves before they can train students in higher-level thinking skills.

### **Barriers in Teaching Critical Thinking**

In Malaysia, it is understood that numerous educators are not able to incorporate thinking ability in their teaching methodology (Mahyuddin et al., 2004). Nagappan (2012) believed that educators are not prepared

to take this step in their classrooms. Hove (2011) found that instructors did attempt to confront the challenge of making an appropriate balance between test preparation and students' need to build creative and critical thinking skills. Another hindrance that must be confronted by educators is lack of time for providing guidelines as contact time with students is restricted. In addition to restricted time, educators must also deal with the many challenges and issues that can crop up in a face-to-face environment (Mandernach, 2006; Thomas, 1999).

In addition, because the face-to-face classroom environment is subject to the constraints of time for learning and applying critical thinking in class, examinations in the classroom have a tendency to be shallow (Cheong & Cheung, 2008). Mandernach (2006) added that a large number of instructors simply repeated the teaching methodology as they were taught it. Choy and Cheah (2009) agreed with this, stating that many instructors were not sure if their students could learn how to think critically by themselves. This was also noted by Louis, Febey and Schroeder (2005), who felt that many instructors struggled with complying with the many complex guidelines for testing students. Time and class management are the main components that keep instructors from venturing into critical thinking-based learning sessions and exercises. Moreover, some educators feel that their students are not prepared for higher order thinking skills, such as critical thinking.

## MATERIALS AND METHODS

The objectives of this study were:

1. To investigate the ALS English lecturers' perception of their critical thinking application when teaching in class as far as analysing, applying standards, discriminating, information seeking, logical reasoning, predicting and transforming knowledge are concerned,
2. To determine the students' perception of the lecturers' critical thinking application in class in promoting the above skills, and
3. To investigate if there was any significant difference between lecturers' and students' perception of the application of critical thinking in the classroom.

The study involved 38 ALS lecturers and 110 ALS students and made use of the non-random purposive sampling method. The students were from Semesters 2, 3, 4 and 5 of the English for Professional Programme, UiTM. Only English lecturers who were teaching content courses were chosen. The instrument used for this study was an adapted version of a questionnaire by Sulaiman (2012) of which, only 38 items out of 58, deemed relevant to the context of this study, were selected and then grouped according to the chosen seven skills namely: analysing (Items 1-6), applying standards (Items 7-12), discriminating (Items 13-18), information seeking (Items

19-23), logical reasoning (Items 24-28), predicting (Items 29-33) and transforming knowledge (Items 34-38). There were two sections in the questionnaire. Section A elicited information on the respondents' demographic profile, while Section B gathered information on their perception of critical thinking application in the classroom based on the seven critical thinking skills. In this study, the questionnaire was divided into two sets – lecturer set and student set. The former recorded the lecturers' perception of their own teaching of the seven critical thinking skills (i.e. I ask students to analyse primary source texts), while the latter gathered data on how the students perceived the lecturers' teaching of the same skills (i.e. My lecturer asks students to analyse primary source texts). A pilot test indicated high reliability of the instrument (0.922) and a 5-point Likert scale ranging from 1 (never) to 5 (almost always) was used for the measurement of each item. The data obtained from the questionnaires were analysed using descriptive analysis and an independent samples t-test. For descriptive analysis, the mean and standard deviation were calculated while for the t-test, the means between the groups were compared.

## RESULTS AND DISCUSSION

### Demographics

There were a total of 38 lecturers who answered the first set of the questionnaire. Twenty-four (63.2%) of them had master's qualification while 14 (36.8%) had doctoral qualification. A total of 110 students answered the second set of the questionnaire.

Twelve (10.9%) were from Semester 2, 45 (40.9%) from Semester 3, 15 (13.6%) from Semester 4 and 38 (34.5%) were from Semester 5.

**Lecturers' and Students' Perception of Critical Thinking Application in Class in Promoting the Skills of Analysing, Applying Standards, Discriminating, Information Seeking, Logical Reasoning, Predicting and Transforming Knowledge**

Based on Table 2, both groups of respondents scored the highest for the same item on the lecturers' use of "questions that ask students to describe data shown to them orally or in written form." This could be associated with the fact that asking students to describe data shown to them is in itself a practice of attaining clarity for effective critical thinking, as clarity, Bassham, Irwin, Nardone and Wallace (2011), Cottrell (2011) and Ennis (1996)

Table 2  
*Analysing*

Lecturers	Mean	Std. Deviation				
I use questions that ask students to describe data shown to them orally or in written form.	4.1842	0.60873				
I use writing assignment prompts for students to engage in textual analysis of literature.	3.3421	1.04691				
Students						
My lecturer uses questions that ask students to describe data shown to them orally or in written form.	3.9273	0.68682				
My lecturer uses in-class, creative projects involving a variety of materials.	3.2545	0.80636				
Independent Sample T-Test						
Position	Mean	Std. Deviation	t	df	Sig.	
<b>Analysing</b>	Lecturers	3.7325	0.58962	0.697	146	0.487
	Students	3.6636	0.50075			

suggested, is one of the basic elements deemed vital in critical thinking. Clarity permits understanding; hence, it enables effective evaluation of an argument or claim (Bassham et al., 2011). According to Ennis (1991), a thinking disposition, when taken to the "sophisticated level" is elevated to "trying to be clear about the intended meaning and nuances of meaning

in a developing discussion or argument." In addition to this, Cottrell (2011) reiterated the substance of clarity, stating that it came with internal and logical consistency. However, both groups of respondents differed in the lowest mean score items as lecturers perceived themselves as using less "writing assignment prompts for students to engage in textual analysis of literature," while the

students perceived less use of “creative projects involving a variety of materials.” The average mean score among the lecturers was 3.73 (0.59) and 3.66 (0.50) among the

students. An independent sample t-test run on the first skill “Analysing” showed there was no significant difference between these scores [ $t(146) = 0.697, p = 0.487$ ].

Table 3  
*Applying standards*

Lecturers		Mean	Std. Deviation			
I ask students to validate their position with examples and evidence, both in verbal and written analysis.		4.0526	0.69544			
I talk about [the] decision-making process during demonstrations.		3.5789	0.82631			
Students		Mean	Std. Deviation			
My lecturer asks students to validate their position with examples and evidence, both in verbal and written analysis.		3.9455	0.78794			
My lecturer encourages peer reviews in writing.		3.4091	0.97957			
Independent Sample T-Test						
	Position	Mean	Std. Deviation	t	df	Sig.
<b>Applying Standards</b>	Lecturer	3.7719	0.62771	0.600	146	0.550
	Student	3.7000	0.64046			

Table 3 repeats the previous pattern, where the item with the highest mean score among the lecturers and students was for lecturers asking “students to validate their position with examples and evidence, both in verbal and written analysis.” The high perception of the lecturers’ role in encouraging students to support their arguments with valid evidence here can be well expected as critical thinking, according to Bassham et al. (2011), Cottrell (2011) and Ennis (1996), necessitates such validation, making it indispensable in the teaching of thinking skills. As validity of evidence liberates the line of reasoning from insubstantial and irrelevant elements, it thus positions immense strength on one’s argument. The items that scored the lowest

mean for both lecturers and students were, “I talk about [the] decision-making process during demonstrations” and “My lecturer encourages peer reviews in writing.” The average mean score for the lecturers was 3.77 (0.63) and 3.70 (0.64) for the students. An independent sample t-test run on the second skill “Applying Standards” showed there was no significant difference between these scores [ $t(146) = 0.600, p = 0.550$ ]

Table 4 shows that the item with the highest mean score among the lecturers and students, indicating that the lecturers and the students shared the same perception, was: “use questions that ask students to analyse materials by comparing between identifying similarities and differences, and summarising conclusion.” Conducting

Table 4  
*Discriminating*

Lecturer		Mean	Std. Deviation			
I use questions that ask students to analyse materials by comparing between identifying similarities and differences, and summarising conclusion.		3.7105	0.80229			
I use discussion of case studies in both large and small groups.		3.0789	1.19417			
Student		Mean	Std. Deviation			
My lecturer uses questions that ask students to analyse materials by making comparison, identifying similarities and differences, and summarising conclusion.		3.6182	0.72923			
My lecturer exposes students to new kinds of text (broadly interpreted to include musical, cinematic, visual, digital) from cultural contexts that differ [from] those of the students.		3.1909	0.95298			
Independent Sample T-Test						
	Position	Mean	Std. Deviation	t	df	Sig.
<b>Discriminating</b>	Lecturer	3.2982	0.82487	-1.311	48.510	0.196
	Student	3.4864	0.54236			

materials analysis is central to critical thinking training, as advocated by Bassham et al. (2011), Cottrell (2011), Elder and Paul (2010) and Ennis (1996) for building “depth”, “precision” and “accuracy” in using critical thinking skills. The items that had the lowest mean score among both respondent groups were, “I use discussion of case studies in both large and small groups” and “My lecturer exposes students to new kinds of text (broadly interpreted to include musical, cinematic, visual, digital) from cultural contexts that differ [from] those of the students.” The average mean score among the lecturers was 3.77 (0.63) and 3.49 (0.54) among the students, while the independent sample t-test conducted on the third skill “Discriminating” showed there was no significant difference between these scores [ $t(48.51) = -1.31, p = 0.196$ ]

Based on Table 5, the item with the highest mean score among the lecturers was, “I ask open-ended questions,” while for the students, it was, “My lecturer uses small group discussion with specific tasks assigned.” The application of open-ended questions, with a high perception score among the lecturers in this study, promotes students’ independence in responding to questions and issues. This can free the students from wishful thinking, bias and stereotypes while expressing their ideas and beliefs, as these, according to Bassham et al. (2011), are barriers to critical thinking. Both lecturers and students, nevertheless, shared the same perception when it came to the item asking about lecturers demonstrating “how approaches can vary and the value of searching multiple media and multiple examples.” The score among both groups

Table 5  
*Information seeking*

Lecturer	Mean	Std. Deviation				
I ask open-ended questions.	4.1316	0.62259				
I demonstrate how approaches can vary and the value of searching multiple media and multiple examples.	3.4211	0.91921				
Student	Mean	Std. Deviation				
My lecturer uses small group discussion with specific tasks assigned.	4.0182	0.75397				
My lecturer demonstrates how approaches can vary and the value of searching multiple media and multiple examples.	3.4091	0.91165				
Independent Sample T-Test						
	Position	Mean	Std. Deviation	t	df	Sig.
<b>Information Seeking</b>	Lecturer	3.8789	0.44489	1.489	86.497	0.140
	Student	3.7418	0.59991			

for this item was the lowest. The average mean score among the lecturers was 3.88 (0.44), while among students it was 3.74 (0.60). The t-test conducted on the fourth skill, “Information Seeking”, showed no significant difference between these scores [ $t(86.50) = 1.49, p = 0.140$ ].

Table 6 reports that the lecturers and students shared the same perception when it came to the item: “use questions that ask students to reflect on their processes of decision-making during a project’s development.” The mean was the highest for this item among both groups. However,

Table 6  
*Logical reasoning*

Lecturer	Mean	Std. Deviation				
I use questions that ask students to reflect on their processes of decision-making during a project’s development.	3.6053	0.78978				
I ask students to observe phenomena, then form and test hypotheses on the phenomena.	2.7368	0.94966				
Student	Mean	Std. Deviation				
My lecturer uses questions that ask students to reflect on their processes of decision-making during a project’s development.	3.6182	0.75397				
My lecturer asks students to form and test hypotheses about observed phenomena.	3.2545	0.92306				
Independent Sample T-Test						
	Position	Mean	Std. Deviation	t	df	Sig.
<b>Logical Reasoning</b>	Lecturer	3.3105	0.67174	-1.289	0.146	0.199
	Student	3.4800	0.70760			

for the items that recorded the lowest mean score, the lecturers and the students seemed to think differently. The score among the lecturers for the item “to observe phenomena, then form and test hypotheses on the phenomena” was lower than the score among the students. The score was low among the latter, meanwhile, for the item, “My lecturer asks students to form and test hypotheses about observed phenomena.” This can be compared with a study by Delaney, Johnson, Johnson and Teslan

(2010) which they found that students wanted their instructors to deliver coherent and thorough lectures in order to maximise the use of instructional time and avoid using irrelevant materials. The average mean score for the lecturers was 3.31 (0.67) and 3.48 (0.71) for the students. The research found that there was no significant difference between these scores [ $t(146) = -1.29, p = 0.199$ ] for the fifth skill, “Logical Reasoning”.

Table 7  
*Predicting*

Lecturer	Mean	Std. Deviation				
I use questions that ask students to apply what they have previously learned to new situations.	3.8684	0.77707				
I invite students to extract from what they have observed, to think about their ideas' implication, and to generate ideas across a range of specific contexts.	3.2632	0.89092				
Student	Mean	Std. Deviation				
My lecturer uses writing assignments with specific tasks or goals focusing on a particular kind of thinking or reflection.	3.7364	0.83146				
My lecturer invites students to extract from what they have observed, to think about their ideas' implication, and to generate ideas across a range of specific contexts.	3.4818	0.84302				
Independent Sample T-Test						
	Position	Mean	Std. Deviation	t	df	Sig.
<b>Predicting</b>	Lecturer	3.4842	0.72876	-1.248	0.146	0.214
	Student	3.6291	0.57395			

Table 7 shows that the lecturers and the students perceived the situation differently when it came to the items with the highest mean score for the skill, “Predicting”. While the lecturers believed they were using “questions that ask students to apply what they have previously learned to new situations,” the students, however,

felt their lecturers used more “writing assignments with specific tasks or goals focusing on a particular kind of thinking or reflection.” The item that recorded the lowest mean score among both the lecturers and students showed that both groups agreed that there was little invitation by lecturers for “students to extract from what

they have observed, to think about their ideas' implication, and to generate ideas across a range of specific contexts." This finding was similar to that by Shukla and Dungsungnoen (2016), who observed that teachers from higher institutions in Thailand were practising more knowledge- and

application-based strategies. The average mean score among the lecturers was 3.48 (0.73) and 3.63 (0.57) for the students. Again, the independent sample t-test showed no significant difference between the scores [ $t(146) = -1.25, p = 0.214$ ] for the sixth skill, "Predicting".

Table 8  
*Transforming knowledge*

Lecturer	Mean	Std. Deviation				
I use the process writing approach for major assignments where students receive feedback on drafts and parts of their projects.	3.6053	0.88652				
I ask students to interpret scientific language in their own words.	2.7632	1.10121				
Student	Mean	Std. Deviation				
My lecturer asks students to articulate an argument that would come from a point of view other than [the] students' own.	3.6636	0.82703				
My lecturer asks students to interpret scientific language in their own words.	3.2727	1.05717				
Independent Sample T-Test						
	Position	Mean	Std. Deviation	t	df	Sig.
<b>Transforming Knowledge</b>	Lecturer	3.1368	0.72052	-2.725	146.007	
	Student	3.4855	0.66551			

Based on Table 8, the item with the highest mean score among the lecturers was, "I use the process writing approach for major assignments where students receive feedback on drafts and parts of their projects," at 3.61 (0.89), while among the students it was, "My lecturer asks students to articulate an argument, that would come from a point of view other than [the] students' own," at 3.66 (0.83). Both lecturers and students had the same perception of the item that recorded the lowest mean score when they were asked if the lecturers "ask students to interpret scientific language in their own words." The

lower score for perception of knowledge transfer could be possibly associated with the fact that critical thinking, as proposed by Gelder (2005), is "vulnerable to the problem of transfer because critical thinking is generally intrinsically general in nature" (p. 43), with its application in a very wide range of fields. The average mean score among the lecturers was 3.14 (0.72) and 3.49 (0.67) among the students. Table 8 shows that there was a significant difference between these scores [ $t(146) = -2.73, p = 0.007$ ] in the mean scores at the 0.05 level. This result tallied with studies by Horwitz (1989) and Willingham (2008), who both showed

that individuals with different sets of skills may perceive the application of critical thinking differently. Riekenberg (2010) also found that students thought highly of their instructors, especially when it came to teaching strategies and applications; this could explain why, generally, the students in this study perceived more strongly than the lecturers themselves that the lecturers were training them to transform knowledge.

## CONCLUSION

From the descriptive analysis, the dimension that received the highest average mean score among the lecturers and students was “Information Seeking”, recording 3.88 (0.44) and 3.74 (0.60), respectively. As mentioned by Scheffer and Rubinfeld (2000), information seeking can be identified as an activity that involves facts and knowledge searching by identifying sources that are relevant and gathering objectives. However, the dimensions that received the lowest average mean score for both lecturers and students were different. Among the lecturers, the lowest mean score was obtained for the “Transforming Knowledge” dimension at 3.14 (0.72). This might have been caused by the lecturers’ inability to provide such tasks in the classroom. Louis et al. (2005) stated that many instructors struggled to meet testing guidelines for student tests. Mandernach (2006) added that most instructors tended to instruct the same way they had been taught, emphasising on teacher-based techniques that esteemed the procurement of substance over the learning

procedure. Meanwhile, among the students, the dimension that received the lowest mean score was “Logical Reasoning”, at 3.48 (0.71). This was probably due to lack of face-to-face time between the lecturers and students. Thomas (1999) felt that there was simply not enough time for educators to cover all the information they feel must be covered. Cheong and Cheung (2008) supported this statement, stating that restricted time in a face-to-face classroom environment prevented delving into critical thinking, leading to shallow discussions in the classroom.

From the independent samples t-test results, one dimension showed a significant difference between the perception of both lecturers and students. The dimension was “Transforming Knowledge” and the value was 0.007, which in the mean scores at the 0.05 level was considered significant. The average mean score for the lecturers was 3.14 (0.72), which was lower compared with the students’ average mean score, which was 3.49 (0.67). In other words, the students thought that their lecturers did promote this dimension in the class while the lecturers felt that their approach did not promote it well. Horwitz (1989) mentioned that perceptions of a teacher were different compared with those of their students. Willingham (2008) agreed, saying that individuals with different information, experience and practice in reflective thinking could see critical thinking in unexpected ways. Therefore, the students thought highly of their lecturers’ ability to promote this dimension of critical thinking in the classroom, but the lecturers did not

feel the same way. The lecturers felt that they had not performed the relevant strategies frequently enough in the classroom.

It can be concluded that both the lecturers and students of the Academy of Language Studies (ALS) in UiTM Shah Alam generally shared the same perception of application of critical thinking in the classroom.

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## ***The Hunger Games: Linguistic Modality as Reflector of Point Of View in a Dystopian Novel***

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### **ABSTRACT**

Dystopian literature is a genre that imagines a futuristic universe in which oppressive societal control and the illusion of a perfect society are expressed. One famous novel of this genre is *The Hunger Games* written by Suzanne Collins (2008). Considering its strong social and pedagogical influences, an analytical study was considered necessary to investigate the linguistic modality of the novel. Modality refers to a speaker's opinion concerning the truth of a proposition. Hence, the primary goal of this study is to examine the linguistic manifestations of modality to identify point of view in the novel by determining the dominant modality shading. Simpson's (2005) framework was used as the analytical tool to conduct the analysis. The results indicate that epistemic modality is the most prevalent modality used in the novel and this has provided the novel with a negative shading. Furthermore, this accentuates notions of alienation and confusion within the narrative, by highlighting the narrator's struggles to make sense of what is happening. The results indicate that the narration reflects the character.

*Keywords:* Boulomaic, deontic, epistemic, modality, shading

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### INTRODUCTION

Some novels from the dystopian genre such as Aldous Huxley's *Brave New World* (1932), George Orwell's *1984* (1949) and Ray Bradbury's *Fahrenheit 451* (1953) have remarkable influence on the concept of dystopia. Within the dystopian genre, post-apocalyptic literature deals with phenomena

relating to a remnant of humanity that has survived a disaster. This could be in the form of an environmental devastation, chemical warfare, genetic experimentation, an alien invasion or an asteroid collision. In *The Hunger Games*, it has to do with a new order of society. In the words of the author, Suzanne Collins (2008):

He [Mayor Undersee] tells of the history of Panem, the country that rose up out of the ashes of a place that was once called North America. He lists the disasters, the droughts, the storms, the fires, the encroaching seas that swallowed so much of the land, the brutal war for what little sustenance remained.

In this novel, disaster and destruction led to the creation of a post-apocalyptic world. However, not all post-apocalyptic situations are dystopian by nature. A scenario turns dystopian when the survivors are governed by an abusive totalitarian system that has the tendency to violently segregate, categorise and abuse. Therefore, post-apocalyptic dystopian novels generally create a futuristic society that has been rebuilt after a disaster, but which still faces various kinds of oppression. This propels the rise of protagonists who fight to restore balance.

Suzanne Collins' *The Hunger Games* (2008) is the first book in a trilogy, of which the second is *Catching Fire* (2009), followed by *Mockingjay* (2010). *The Hunger Games* instantly became a New York Times

Bestseller and went on to top various prestigious literary award lists (Gresh, 2011). Its acclaimed international bestseller title led to its being converted into a film and has also sparked academic interest, with researchers keen to examine various aspects of the novel. These aspects include identity, gender, love, trauma and recovery (Henthorne, 2012); hunger, violence and child soldiers (Simmons, 2012); masculinity and femininity (Woloshyn, Taber, & Lane, 2013); gender performativity and media influence (Loo, 2014); emerging themes and trends (Ryan, 2014) and female rebellion (Day, Green-Barteet, & Montz, 2014).

According to Trask (1998) elements that distinguish between different genres are their distinctive characteristics, and these are constant and easily recognisable. Due to this fact, *The Hunger Games* is being used in academic syllabi and curricula as a subject of analysis. For example, at the University of Alaska Fairbanks, Tilton (2012) used the novel to identify characteristics of a fictional human future that could become true. It was also used to gain a better understanding of societal issues through fictional depiction. At the University of Michigan, Berger (2015) used it to study democracy and power. In New South Wales, *The Hunger Games* has been included as part of the suggested texts for the English K-10 syllabus by the Board of Studies of New South Wales (2012) for the past few years. Furthermore, the novel is part of the Seventh Grade English Syllabus (2016) for the past two years at the Powell Middle School in Tennessee. These are just a few examples of academic institutions that

use *The Hunger Games*. The popularity and acceptance of this novel led the researcher to choose it as the subject of the present study.

The story revolves around Katniss Everdeen, a 16-year-old who has to take part in the 'Hunger Games', a televised live battle to death, in which she has to fight for her survival. In *The Hunger Games*, people are divided into districts in the post-apocalyptic world of Panem, a "country that rose up out of the ashes of a place once called North America" (Collins, 2008). Districts are divided according to industries; Katniss is from the coal-mining district, District Twelve, "[w]here you can starve to death in safety". At 11, she lost her father, "who was blown to bits in a mine explosion". The bleak and dismal state of the Seam, where Katniss lives, is rife with illness and death. This is because of the oppressive regime of the Capitol and the punishments executed: starvation, poverty, imprisonment and compulsory fights. Katniss provides for her family by hunting and foraging. She acknowledges her role as provider as seen in her assertive believe, "I kept us alive". She does everything possible to protect her mother and her sister, Primrose. In fact, it is her fierce sense of protectiveness that makes Katniss volunteer to participate in the annual Hunger Games when her sister is chosen during what is called the 'reaping'. From that point on, Katniss faces many challenges: betrayal, loss, the death of peers, deception and having to kill to survive.

Katniss has had to assess and assimilate situations as she tries to comprehend the people in her life and the events that take

place. When she was younger she would blurt out derogative truths about District 12. She soon understands that such behaviour would only lead to more 'trouble' so she learns to 'hold her tongue' and to turn her "features into an indifferent mask" to hide her feelings (Collins, 2008). Hence, she learnt not to show how she really felt so that she would not be punished. Katniss also has to constantly make quick decisions after volunteering to be a tribute. A tribute is someone who participates in the Hunger Games. During the games, each tribute can take any of the supplies strewn around at the 'Cornucopia', a "giant golden horn shaped like a cone" full of supplies such as food, water, medicine, garments, weapons and fire starters. This is where the biggest bloodbath usually occurs as tributes kill for items that they want. Katniss wants to take the sheath of bow and arrows. She is sure of her ability and she knows she is fast but tries to make sense of what is best: "I know I can get it, I know I can reach it first, but then the question is, how quickly can I get out of there?"

This shows that Katniss uses each situation to her advantage by questioning and analysing every aspect of it. She weighs the pros and cons before making an educated guess on what will work best for her. Even at the end of the novel, as Katniss is approaching home, she still feels confused by all that has happened and is going to happen. The last lines she speaks aloud are, "I don't know. The closer we get to District Twelve, the more confused I get, I say. He waits for further explanation, but

none's forthcoming". Before the games, Katniss and Peeta had to pretend to be the star-crossed lovers of District Twelve. Peeta has loved Katniss since he was a little boy. He thought that Katniss had finally fallen in love with him, only to find out that she has been pretending in order to survive the games. As they near home, Katniss is still unsure of her feelings for Peeta and for her hunting partner, Gale.

Katniss embodies the roles of protector, provider and hunter before the games. During the games, she is given various titles, such as The Girl on Fire, The Star-Crossed Lover and also, unknowingly becomes the face of an uprising among the districts of which she was unaware. Despite being a strong character (Balkind, 2014), Katniss is bound to feel confused and wary as she navigates each challenge that she faces in her life. It is evident that Katniss' character is multifaceted; this study examines if this element and dimension of Katniss can be observed in the narration.

In a novel, the point of view establishes the mode of narration and distinguishes the perspective through which the story is told. It also poses an interesting facet in understanding the narrative's intrinsic nature. It interprets a narrative by highlighting whose thoughts and views are followed as events unfold. Genette (1980) introduced the terms heterodiegetic and homodiegetic narrative to help distinguish the voice of a narrative. A heterodiegetic narrative is a narration by a third-person narrator who is "external, detached, [and] situated outside

the story," while a homodiegetic narrative is from a first-person narrator "who is internal to the narrative and is on the same plane of exegesis as the story" (Simpson, 2004).

The lives and trials of all characters in *The Hunger Games* are conveyed from the point of view of the protagonist, Katniss Everdeen. This is typified in the following excerpts taken from the novel:

When I wake up, the other side of the bed is cold. My fingers stretch out, seeking Prim's warmth but finding only the rough canvas cover of the mattress. (p. 1)

Peeta unexpectedly laughs. "He was drunk," says Peeta. "He's drunk every year." "Every day," I add. I can't help smirking a little. (p. 56)

So as I slide out of the foliage and into the dawn light, I pause a second, giving the cameras time to lock on me. Then I cock my head slightly to the side and give a knowing smile. There! Let them figure out what that means! (p. 163)

That brings me back to Cato. But while I think I had a sense of Foxface, who she was and how she operated, he's a little more slippery. Powerful, well trained, but smart? I don't know. Not like she was. And utterly lacking in the control Foxface

demonstrated. I believe Cato could easily lose his judgement. (p. 320)

Given the pervasiveness of this type of narration in *The Hunger Games*, it would be appropriate to say that *The Hunger Games* employs a homodiegetic narratorial point of view. According to Childs and Fowler (2006), the first-person point of view narration in fiction allowed the author to “enter the intimacy of the protagonist’s mind”. By giving the protagonist voice in a story, the author allows the reader to have access not only to experiences but also the thoughts, feelings and motivation of the character. As shown in the examples above, readers get to feel and sense what Katniss is going through as everything is described literally from her eyes: the coldness of the bed, the roughness of the canvas mattress cover, her feelings about Haymitch’s drinking habit (Haymitch is the only living Hunger Games victor from District 12, and in the novel becomes the mentor for Katniss and Peeta) and her opinion of two other contestants, Foxface and Cato. Readers get to share her thoughts as she tries to confuse viewers of the Hunger Games by making them wonder if Peeta had betrayed her or if they had previously planned for Peeta to pair up with other contestants as a games strategy.

Past studies on first-person narration have examined issues related to the reliability of the narrator (Bockting, 1993; Cartwright, 1984; Edmiston, 1989; Murphy, 2012; Semino, 2002). Booth (1961) described a narrator as being “reliable when he

speaks for or acts in accordance with the norms of the work (which is to say, the implied author’s norms), unreliable when he does not.” On the other hand, Martin (1986) claimed that any first-person narrator “may prove unreliable because it issues from a speaking or writing self-addressing someone. This is the condition of discourse in which. . . . the possibility of speaking the truth creates the possibility of misunderstanding, misperceiving, and lying.” Dooley (2004) had examined the use of the first-person narrative in Iris Murdoch’s *The Black Prince* and found that using the first-person narrative in the novel helped to depict events in such a way they were so “closely allied to the perceptions and experiences of the main character.” Cartwright (1984) looked at the unreliability of Nick, the protagonist of *The Great Gatsby*, who was also the narrator of the novel, and discovered how the disillusion of the character had not had much influence on the reader due to his own unreliable assessments of key events in the novel. Bockting (1993), who analysed Faulkner’s *The Sound and the Fury*, showed how the narratives of the characters in the novel were characterised by patterns in the representation of their speech that in this case reflected their mental disorder (Bockting, 1993). She concluded that the idiosyncratic ways in which narrators report other people’s words could be exploited in the creation of mind style. Semino and Swindlehurst (1996), on the other hand, had looked at how the metaphors used by Bromden the narrator, who was also the protagonist in

the novel *One Flew Over the Cuckoo's Nest* convey the character's mind style. Bromden suffers from clinical depression, hallucination and is also diagnosed as being schizophrenic. Throughout the novel his narration is characterised by the metaphors of machinery that, according to Semino and Swindlehurst (1996), reflect not only the character's conceptualisation of reality, but also his cognitive habits and ultimately, the mental illness that afflicts him.

Narratorial point of view and its relationship with the linguistic system of modality is also a vital aspect of stylistic analysis (Leech & Short, 2007; Simpson, 2004). Modality is a key tool for recognising the interpersonal function and the expression of social roles between the addresser and addressee in a discourse. It reflects the speaker's attitude towards the situation or event described by a sentence or about the proposition expressed by the sentence (Halliday & Hassan, 1985). In other words, modalities are imperative in expressing and understanding the underlying values and the varying degrees of certainty towards a proposition or belief. In narratives such as in fiction, the usage of modalities can determine the 'feel' of a text and that modality is often used in a narrative to depict thoughts, feelings and senses (Simpson, 2005). Fowler (1985) delineated that modality was "signified in a range of linguistic forms" primarily by modal auxiliary verbs, such as *may* and *might*, adverbs, such as *probably* and adjectives, such as *necessary*.

Given the intricacies of the character of Katniss, the protagonist, who is also the

narrator of *The Hunger Games*, this paper seeks to examine modality with regard to the narrative voice and to what extent the narration reflects the different shadings. The analysis of point of view will be based on Simpson's modal grammar point-of-view framework (2005).

The purpose of this paper is twofold. It aims (1) To determine the modalities employed in *The Hunger Games*; and (2) To indicate the dominant modality shading in relation to point of view in the novel.

### The Modality Framework

There are four main modal systems as cited by Simpson (2005): deontic, boulomaic, epistemic and perception. Deontic modal auxiliaries actualise a progression of commitment ranging from (i) permission, such as *you may leave*; through (ii) obligation, such as *you should leave*; to (iii) requirement, *you must leave* (Simpson, 2005, p. 43). This particular modality can be found in directives that impose obligations or grant permission and the modal auxiliary verbs that signal this type of modality are *can*, *may*, *must*, *shall* and *should*. There are, however, sentences that do not contain these modal auxiliaries but still indicate deontic modality. Cases like this generally combine adjectives and participles through the 'BE . . . THAT' and 'BE . . . TO' constructions (Simpson, 2005), such as:

- (a) You are permitted to leave.  
(BE+participle+TO)
- (b) It is necessary for you to leave.  
(BE+adjective+THAT)

Boulomaic modality is used to express wishes and desires as well as “the degree of the speaker’s (or someone else’s) liking or disliking of the state of affairs” (Nuyts, 2005). Simpson (2004; 2005), explicated that modal lexical verbs such as *hope*, *wish* and *regret* as well as their corresponding forms of modal adverbs such as *hopefully*, *unfortunately* and *regrettably* were vital to the boulomaic system. Boulomaic modality can also be observed in participial and adjectival constructions using the BE . . . THAT’ and ‘BE . . . TO’ constructions (Simpson, 2005), such as,

(c) It is hoped that you will leave.

(BE+participle+THAT)

(d) It’s good that you’re leaving.

(BE+adjective+THAT)

Epistemic modality is used to show the speaker’s knowledge or belief concerning the truth of a particular proposition. It could be in the form of certainty that can be verified to complete absolute doubt and uncertainty (Gavins, 2007). For this purpose modal lexical verbs such as *think*, *suppose* and *belief*, modal adverbs such as *maybe*, *perhaps*, *possibly*, *probably*, *allegedly* and *certainly* and modal auxiliaries such as *may*, *could*, *must*, *might* and *should* are used. The adjectival constructions BE . . . THAT’ or ‘BE . . . TO’ structure, as espoused by Simpson (2005, p. 45) can be applied:

(e) It’s certain that you are right.

(f) It’s doubtful that you’re right.

Perception modality is considered a sub-category of epistemic modality, which refers to forms of human perception and

understanding that are related to the degree of the truth of a proposition. These perceptions that are often visual perceptions can be conveyed through the use of adjectives in BE . . . THAT’ structures along with related modal adverbs (Simpson, 2005), such as:

(g) It’s clear that you are right.

(h) Apparently, you are right.

*The Hunger Games* unfolds from the point of view of Katniss Everdeen, who is the sole narrator of the novel. According to Simpson’s modal grammar of point of view (2005), narratives with such a point of view, i.e. homodiegetic, are categorised into different shades, namely positive, negative and neutral. Narratives with abundant use of both deontic and boulomaic modalities are considered as having a positive shading and, as pointed out by Iwamoto (2007), “the general flow of discourse of this type is binding, obligatory, assertive, and strong.” Positive narratives generally contain a rich use of evaluative adjectives and adverbs such as happily, terrible, hopeless, and the deontic and boulomaic modalities of obligation, desire, duties and opinions (e.g. you should . . . , you must . . . , I want . . . , they hope . . . , she wished for . . . ). It tends to be rich in generic sentences and in *verba sentiendi* (words expressing feelings thoughts and perceptions e.g. feel, suffer).

Negative narratives, on the other hand, are foregrounded by the epistemic and perception modalities. This type of shading generally signifies the narrator’s uncertainty or lack of confidence about events or characters in the story. Epistemic and perception modalities are signalled by the

use of modal auxiliaries, modal adverbs, modal lexical verbs (I wonder . . . , I suppose . . . ) and perception adverbs (evidently apparently, perhaps) (Simpson, 2005).

A narrative with neutral shading is one without any narratorial modality. The narrator withholds subjective evaluation and favours neutral descriptions (Simpson, 2005). Generally, the style of neutral shading depicts “flat, unreflective, cool, distanced and detached” narration (Simpson, 1993) and contains categorical assertions that suppress any subjective evaluation or opinions on the events or characters in the narrative.

Table 1 shows the relations between shading, modal systems and modals compiled from works of Simpson (1993, 2004, 2005). It summarises how the modal

systems determine the mode of shading. Since issues related to the subjectivity of modal analysis range from its exact definition to its different modal system classification (Nuyts, 2016), the present study investigated the listed modals.

Classifying modals into a particular modality can be difficult (Nuyts, 2016). Some modals may have more than one function and cause modals to overlap between categories. For example, Palmer (2001) explained this scenario using the modal *can* in two sentences: (a) *John can come in now.* (b) *John can speak French.* The former conveys permission while the latter expresses ability. This gives rise to the question of whether undertaking the study of modality is deemed an impossible task. This is not the case because although

Table 1  
*Relationship between shading, modal systems and modals analysed*  
 (Adapted from Simpson, 1994, 2004, 2005)

Shading	Prominent Modal System	List of Modals
Positive	Deontic	Should, must, allowed, may, possible, advisable, can, had to, have to, has to, ought to, forbidden, necessary, claim
	Boulomaic	Wish, hope, hopefully, regretfully, need, want, luckily, fortunately, unfortunately
	Epistemic	Could, may, maybe, perhaps, possibly, might, suppose, supposedly, believe, know, think, certainly, believably, surely, doubt, definitely
Negative	Perception	Seem, evident, apparently, obviously, clearly, clear, appears
Neutral	Unmodalised	Absence of modals

there is possible variance in interpretation, the range of this variance remains within very limited parameters. Furthermore, it is found to be accountable within a frame of reference or system. Langacker (2008) elaborated that whether a modal was used or left out in a sentence or utterance basically “indicates whether the profiled occurrence is accepted by the speaker as being real or merely potential.” For instance, it can be seen in the following sentences: (iv) *He is hungry*, and (v) *He may be hungry*. In (v) the presence of the modal *may* shows that there is a possibility that he may in fact not be hungry while (iv) is a categorical assertion and is unmodalised. Therefore, modals can be categorised depending on their context (Marasović, Zou, Palmer, & Frank, 2016).

## MATERIALS AND METHODS

This paper presents an analysis of *The Hunger Games* written by Suzanne Collins (2008) that follows the challenges faced by Katniss Everdeen as she fights to survive an oppressive post-apocalyptic dystopian world. Simpson’s framework (2005) was applied to study the modal expressions used to realise the deontic, boulomaic, epistemic and perception modal systems in 27 chapters of the novel.

The approach and methodology adopted for this study were both qualitative and quantitative. Using modality as the criterion in this study of point of view, the novel was analysed to determine which modal system is foregrounded. This was done using The Qualitative Data Analysis software, ATLAS.

ti as an organising tool (Frieese, 2014). First, the modal expressions in the text were highlighted using the list of modals identified from the works of Simpson (1993, 2004, 2005) (Table 1). The highlighted occurrences were coded as either deontic, boulomaic, epistemic or/and perception modality depending on their context.

A quantitative approach to the textual analysis was done to calculate the frequency of usage for each modality. The number of occurrences for each modality (code) was then calculated. This was done to determine the prevalent modality to establish the shading of the novel, namely positive, negative or neutral. This analysis revealed the ‘colour’ and ‘feel’ of the narrative (Simpson, 1993). Within Simpson’s framework, a narrative has a neutral shading when there is a “complete absence of narratorial modality” (Simpson, 2005). Since there is evidence of modality in the novel, the rest of this paper will only focus on positive and negative shadings.

## Analysis

The following excerpt is a sample of the analysis and shows how the modalities were categorised.

Certainly [Epistemic] Peeta has thrown a wrench into our star-crossed lover dynamic. Or has he? Maybe [Epistemic] people will think [Epistemic] it’s something we plotted together if I seem [Perception] like it amuses me now. (Collins,

2008)

In the excerpt above, four occurrences of modals were identified (underlined) and classified into the different modalities (square-bracketed). The above excerpt was taken from Chapter 12 of the novel, where Katniss discovers that Peeta has joined a group of tributes called the Careers who are looking for Katniss to kill her. Here, she starts off feeling certain that he has betrayed her, and then moves on to doubting that notion and then decides to make the best of her situation by using it to her advantage, all in the span of a few sentences. The above example is a clear example of a negative shading type of narration and illustrates the uncertainty felt by Katniss with the shocking discovery.

Sometimes, there are cases of overlap or 'double up' (Simpson 2005) modal expressions such as *may* and *must*. These two modal expressions are used to express notions of possibility or necessity. For instance, the use of *may* in "And *may* the odds be ever in your favour" (Collins, 2008), is an example of boulomaic modality that is used to express the speaker's [Effie Trinket] desire to wish the people of District 12 another version of 'good luck'. In the following example, *may* is an example of epistemic modality where it is used to reflect possibility: "Above all I am hoping for trees, which *may* afford me some means of concealment and food and shelter". *May* can also be used to realise deontic modality to indicate regulations and permission: "Closer examination of the rule book has disclosed that only one

winner *may be* allowed," he says. Palmer (2013) delineated that when permission was obtained it allowed an action to be made possible, and when an obligation was made necessary, it made the proposition deontic.

The use of the modal auxiliary *must* could also indicate two possible modalities. For example, in the excerpt "Over the period of several weeks, the competitors *must* fight to the death" (Collins, 2008), *must* is an example of deontic modality indicating how the competitors in the hunger games are not given a choice; they have to fight until they die or kill everyone else and survive. On the other hand, in the following excerpt *must* is an epistemic modality: "There *must have been* some mistake". This is a reflection of the narrator's thought when she first hears her sister's name being called out during reaping. Katniss has difficulty in believing Prim's name has been chosen as a tribute, and as illustrated in the above excerpt, the use of *must* signifies the narrator's attempts to understand what is happening in the event.

Given the possible variation in the identification of the modalities, in this study, the context in which the modals are used will be considered to determine the categorisation of the modals.

## RESULTS AND DISCUSSION

Based on the data analysed, 2215 modals were identified. The elicited occurrences of modality were categorised into four modal systems based on Simpson's (2005) modal

Table 2

*Overall result of analysis based on different shadings and modalities*

Modality	Positive Shading				Negative Shading			
	Deontic		Boulomaic		Epistemic		Perception	
	n	%	n	%	n	%	n	%
	706	31.87%	253	11.42%	1,103	49.80%	153	6.91%
Total	959 (43.29%)				1256 (56.71%)			

grammar of point of view in the narrative fiction framework. Table 2 presents the tabulation of the frequency of modalities employed in all the 27 chapters of the novel.

As presented in Table 2, all the four modalities were found throughout the novel, but based on the findings, it appears that epistemic modality is featured the most frequently compared with the other three modalities. In particular, from the results, it seems clear that positive shading (56.71%) is the dominant shading in the novel.

Epistemic modality (49.80%) had the highest number of occurrences. It appears that the narrative foregrounded epistemic modality to augment a general sense of disorientation and perplexity, for instance: “I may be able to get out,” “scares me what they might do to my mother” and “I suppose a canon goes off” (Collins, 2008). Describing the nature of the epistemic modality, Simpson (2004) explained that it enhances the point of view of confusion and bewilderment. Out of the total number of modals that were identified using the lexical of modality in Table 2, deontic modality was seen as the second most frequently used modality. This indicates that there are many rules, obligations and requirements that the

characters are supposed to follow, such as “all forms of stealing are forbidden” and “travel between the districts is forbidden”. Nevertheless, there are more occurrences dealing with the degree of the certainty or uncertainty of a proposition or event in the narrative.

Only 11.42% of the modalities were identified as the boulomaic modality, which, generally, is related to wants and desires of the narrator and characters. For example, during the reaping, Katniss wishes she could “whisper” to Gale to offer him comfort, “that there are thousands of slips” (Collins, 2008) because there is a high probability that Gale’s slip would be drawn from the lot. Perception modality is found at the very small frequency of (6.91%). This could be a reason why it is considered a subcategory of epistemic modality. There are times when Katniss absolutely believes her perception to be true: “Obviously I am being monitored closely monitored”. However, there are instances of doubt, such as, when Peeta compliments her: “Obviously meant to demean me. Right? But a tiny part of me wonders if this was a compliment”.

Table 3 illustrates some examples for each modality. The phrases or linguistic

Table 3  
*Selected examples from The Hunger Games (Collins, 2008)*

Modality	Example
Epistemic	<p>What really scares me is what they <u>might</u> do to my mother and Prim, how my family <u>might</u> suffer now because of my impulsiveness. (p. 103)</p> <p>Another reminder of our weakness, I <u>suppose</u>, just like the Hunger Games. (p. 185)</p> <p><u>Maybe</u> the best approach is to get him talking. (p. 296)</p> <p>It's messing with my mind too much, trying to keep straight when <u>we're supposedly</u> friends and when we are not. (p. 99)</p> <p>Instantly, I know I'm in trouble. (p.100)</p> <p>I <u>wonder</u> if the people she's been plugging us to all day either know or care. (p. 74)</p>
Deontic	<p>You <u>may</u> do this for each of your family members as well. (p. 14)</p> <p>When the train makes a brief stop for fuel, <u>we're allowed</u> to go outside for some fresh air. (p. 364)</p> <p>He <u>should</u> know about fire, being a baker's son and all. (p. 67)</p> <p>But Peeta and I <u>must</u> make an early start. (p. 137)</p> <p>All forms of stealing <u>are forbidden</u> in District 12. (p. 30)</p> <p>We <u>are forbidden</u> to engage in any combative exercise with another tribute. (p. 93)</p>
Boulomaic	<p>I <u>wish</u> she'd hurry because I don't want to hang around here too long. (p. 226)</p> <p><u>Unfortunately</u>, the packet of cookies hits the ground and bursts open in a patch of dandelions by the track. (p. 49)</p> <p><u>Hopefully</u>, it will be put down to excitement. (p. 351)</p>
Perception	<p>His rages <u>seem</u> pointless to me, although I never say so. (p.15)</p> <p>Cinna comes in with what <u>appears</u> to be an unassuming yellow dress across his arms. (p.348)</p> <p><u>Obviously</u>, the noble boy on the roof top was playing just one more game with me. (p. 161)</p> <p><u>Apparently</u>, I'm too 'vulnerable' for ferocity. (p. 118)</p>

expressions that mark the modality have been underlined:

Evidence of epistemic modality abound, making it the foregrounded modality in the novel. Examples (1) to (6) show epistemic modality being used to indicate the certainty or uncertainty of the speaker's belief. In Example (1), Katniss is worried about the actions the Gamemakers (the people who design and control the Hunger Games) would take when she purposely shot the

apple in the roasted pig's mouth that was brought in for them. She does not care if they would punish her but is uncertain if the Gamemakers would resort to extreme actions on her family as a way to reprimand her. Example (3) is taken from Chapter 22, in which Katniss is trying to ramp up romance with Peeta because that is the only way for them to get food. She is not particularly good at seducing boys and in the chapter she is wondering if the best

way to start is to make Peeta talk. For the most part, excessive use of epistemic modal expressions can also convey a “sense of alienation” (Iwamoto, 2007). In Example (4), Katniss and Peeta are sharing a joke about Haymitch. As she “makes a sound between a snort and a laugh”, Katniss stops. Not knowing if he is friend or foe makes Katniss distance herself from Peeta. The uncertainty of whether she can trust Peeta is “messing with my [her] mind too much” as seen in Example (4). She fluctuates between accepting Peeta and alienating him.

Deontic modality is the second most frequently used modality (31.87%). This can be attributed to the totalitarian nature of the dystopian world. As the modal system of duty, it is used to express a continuum of commitment, obligation and requirement. Examples (7) and (8) are instances where deontic modality is used to express permission. The people of Panem are given a way out of their starvation by being able to add their names to the ‘pool’ of names for the Hunger Games in return for tesserae (currency). This actually increases their chances of being selected, making it seem like permission to do something when it is more of a punishment. Next, in (9), Katniss presumes Peeta has to be familiar with fire. He is expected to be able to handle any emergencies once their clothes light up with synthetic fire. For that reason, although she is called “the girl on fire” by her stylist, Cinna, she feels safer knowing Peeta is beside her. *Must* is used as a requirement in Example (10). There are modal expressions reflecting a strict regime of obligations

and rules within the novel, as portrayed in Examples (11) and (12). This type of modal patterning also indicates the instances when the narrator is able to make sense of what is happening around her (Katniss). This notion is supported by Palmer, who sees deontic modalities as “directives concerned with enabling the subject of the sentence to act” (2003).

Instances of boulomaic modality extracted from the data are used to indicate expressions of wants and desires. The rather low percentage of boulomaic modality (11.42%) indicates a large margin of difference between expressions of hope and despair. Modal lexical verbs and related modal adverbs are used to express the wishes and desires of the speaker as seen in Examples (13) to (15) i.e. *wish*, *unfortunately*, *hopefully*. As she travels by train to the Capitol for the Hunger Games, Katniss throws out a packet of cookies given by Peeta’s father. It lands on a patch of dandelions. Katniss remembers that many years ago, when she and her family were on the brink of starvation, Peeta saved her by giving her a loaf of bread. The day after that, when Katniss happens to see the “first dandelion of the year” (p. 33), she suddenly realises how she can provide for her family. When she says, “When I saw the dandelion and I knew hope wasn’t lost” (Collins, 2008), she underlines the significance of hope to herself when all hope seems lost. However, now the reality is that kind Peeta is also competing in this gruesome deadly game. Examples such as this could explain the reason the narrator hardly expresses

herself using ‘I hope’. It implies that such expressions are held back as ultimately, they could lead to disheartenment. Therefore, the implication behind the lack of boulomaic modality must not be overlooked.

There are not many occurrences of perception modality (6.91%) in the data. This modality is usually seen as a subcategory of epistemic modality (Gavins, 2007). The narrator’s uncertainty concerning the motives of other characters and events are chiefly realised through visual perception captured in the use of words such as *seems* and *appears*. It is also used to indicate the degree of commitment to the truth predicated on references to human perception as shown in Examples (16) to (19). Katniss and Gale trust each other and often share their feelings about the injustices they face. Although Katniss agrees with Gale, she perceives his bouts of extreme anger to “seem pointless” because there is no point in “yelling about the Capitol in the middle of the woods” (Collins, 2008). In Example (19), Haymitch has to prepare Katniss for her interview with Caesar Flickerman. They try out different dispositions, for instance, funny, sexy, witty and humble. As far as Haymitch can see, Katniss is too “vulnerable for ferocity”. The use of *apparently* here may imply that Katniss does not agree with his visual perception of her. This mentoring session drives Haymitch back to his drinking because Katniss is unable to hide her hostility towards the Capitol.

The analysis of the modalities frequently used in *The Hunger Games* suggests an augmented use of the epistemic

and perception modalities (refer to Table 2), indicating a greater tendency towards negative shading in the narrative of the novel (56.71%). In contrast, 43.29% of the narration is considered as exhibiting positive shading.

Katniss is highly responsible and goes to any extent to protect her family and friends. For example, she decides to take over Prim’s place in the Hunger Games even if that means she has to sacrifice herself in the deadly game. During the games, she risks her life to get the medication that will save Peeta’s life. Katniss is very intelligent, resourceful and creative. As a young child, she would find food for her family in the forests which are full of wild beasts in order to save them from starvation,

It was slow-going at first, but I was determined to feed us. I stole eggs from nests, caught fish in nets, sometimes managed to shoot a squirrel or rabbit for stew, and gathered the various plants that sprung up beneath my feet. Plants are tricky. Many are edible, but one false mouthful and you’re dead. I checked and double-checked the plants I harvested with my father’s pictures. I kept us alive. (p. 51)

From the beginning of the novel Katniss exhibits a survival mindset and this characteristic is visible to all who know her. During an argument, Peeta reveals his last conversation with his mother before he left for the Hunger Games:

*You know what my mother said  
to me when she came to say  
goodbye, as if to cheer me?  
She says maybe District Twelve*

*will finally have a winner. Then I realized, she didn't mean me, she meant you!" bursts out Peeta. "Oh, she meant you," I say with a wave of dismissal. "She said, 'She's a survivor, that one.' She is," says Peeta.* (p. 90)

Katniss immediately thinks Peeta is lying, but perceives he is telling the truth when she sees the pain in his eyes.

During the Hunger Games, when someone needs to step up and take control, it is always Katniss, as she possesses natural leadership qualities. This can be seen from the way Katniss takes control of complex situations and figures out how to overcome challenges during the games. When she forms an alliance with another tribute named Rue, Katniss comes up with a plan: "Somehow Rue and I must find a way to destroy their [Career Tributes] food" (Collins, 2008). Career Tributes (usually from District One, Two and Four), come from wealthier districts and are trained and fed all their lives in preparation for the Games. Katniss figures they will struggle to survive if their food supply is destroyed:

*Traditionally, the Career Tributes' strategy is to get hold of all the food early on and work from there. The years when they have not protected it well – one year a pack of hideous reptiles destroyed it, another a Gamemaker's flood washed it away – those are usually the years that tributes*

*from other districts have won.* (p. 206)

Rue creates a diversion to attract the Careers away from the Cornucopia while Katniss blows up all the supplies and food that the Careers were protecting there. Later, when Katniss teams up with Peeta, she nurses him back to health and keeps him safe and alive. Katniss is the one who realises that the Capitol needs a victor for the games and decides that both of them will eat some poisonous berries. She asks Peeta to "trust" that her plan will work because, "We both know they have to have a victor. Yes, they have to have a victor". These examples show Katniss' ability to find a solution for every problem thrown at her.

The narrative exposes Katniss' ability to be able to have clarity of mind in deadly and high-strung scenarios. When she sets the tracker jackers on her enemies, Katniss gets stung a few times too. This results in extremely painful welts and hallucinations. As Glimmer (another opponent) lies dying from the tracker venom, Katniss knows she has to get the bow and arrows out of Glimmer's hands before a cannon fires, signalling her death. Once the cannon fires, a hovercraft will appear to remove the body. She thinks to herself, "The bow. The arrows. I must get them". Even when she is poisoned and hallucinating, Katniss is strong enough to fight the spread of the poison and still somehow have the clarity of mind to retrieve the weapons that were originally meant for her. She constantly reminds herself of her obligations, of what she needs to do next to ensure safety: "Now when it is dark,

and I have traveled far, and I am nestled high in this tree, now I must try and rest". Although it is difficult to sleep under such duress, Katniss forces herself to sleep. She always thinks two steps ahead about what she needs to do.

Katniss does not often voice out her desires, wants and needs. However, when she does, it is usually for someone else or for her immediate survival, as these examples denote: "And I need sleep desperately because in the arena every moment I give in to fatigue will be an invitation to death" (Collins, 2008). Knowing when she should rest and when she should not and having the perseverance and grit to do it is not an easy feat. Katniss is aware of her ability and limitations: "I just keep moving, pausing only to check for pursuers. I can go a long time. I know that from my days in the woods. But I will need water". These examples show that Katniss seems sure of herself in the role of hunter and is comfortable in the woods, thus giving the text a positive shade in expressing ability and obligations.

Katniss generally exhibits the moral high ground. During the games, she does not seek out her opponents and kill them although she could if she wants to. When Gale (her best friend and hunting partner) comes to say goodbye, he tells her that she is the best hunter he knows: "'You know how to kill.' 'Not people,' I say. 'How different can it be, really?' says Gale grimly. The awful thing is that if I can forget they're people, it will be no different at all". Nevertheless, she is not bloodthirsty and only kills in

self-defence and once while attempting to protect Rue. She indirectly kills two Career Tributes by setting genetically engineered wasps known as tracker jackers on them as they wait below a tree she is hiding in to kill her. She also kills the boy who puts a spear through little Rue, "The boy from District One dies before he can pull out the spear. My arrow drives deeply into his neck". Despite her attempt to save her, Rue dies.

Physically, Katniss is athletic and at times she appears to be more masculine and mentally stronger than her fellow tribute, Peeta.

"All right, so give me some idea of what you can do," says Haymitch. "I can't do anything," says Peeta. "Unless you count baking bread." "Sorry, I don't. Katniss. I already know you're handy with a knife," says Haymitch. "Not really. But I can hunt," I say. "With a bow and arrow." (Collins, 2008)

The totalitarian nature of the novel crystallises the presence of a lot of rules in the novel, emphasised by the use of the deontic modality and casting a positively shaded text. However, Katniss does not necessarily follow these rules, such as, "trespassing in the woods is illegal," "poaching carries the severest of penalties" and having a weapon will result in public execution for "inciting a rebellion". These are all rules that Katniss breaks on a daily basis in order to survive.

A clear rationalisation of obligations, ability, desires and duties need to be reflected on through the use of positive shading in the narration in order for a positive shading

to be dominant. Although there are such realisations, they occur less frequently than those that indicate a negative shading.

Questions of identity play an imperative and recurring role in reflecting a negative shade type of narration. Katniss' dilemma with the ever-changing roles that are continually thrust upon her often leaves her feeling frustrated and agitated. The protagonist certainly has strong personality traits that have shaped her character and roles in the novel. When there are only four tributes left (Katniss, Peeta, Thresh and Cato), Katniss finally allows herself to think of the possibility of winning:

What would my life be like on a daily basis? Most of it has been consumed with the acquisition of food. Take that away and I am not really sure who I am, what my identity is. The idea scares me some. (Collins, 2008)

Victors get to live in fine houses in their respective district's Victor's Village. They will receive fame, wealth and "will be showered with prizes, largely consisting of food". The winning districts will be given grain, oil and "delicacies such as sugar". With the supply of food, Katniss will lose her pivotal role as hunter and provider. This augments identity issues in Katniss' life in terms of the roles she plays.

Towards the end of the novel, as she gets ready to go home, Katniss feels that she is "transforming back" into herself: "Katniss Everdeen. A girl who lives in the Seam. Hunts in the woods. Trades in

the Hob. I stare in the mirror as I try to remember who I am and who I am not" (Collins, 2008). When she joins the others, the once comforting pressure of Peeta's arms around her shoulders now feels "alien." As thoughts of her mother, Prim and Gale take hold of her, Katniss no longer feels that she is the Girl on Fire or The Star-Crossed Lover. It appears that the negative shading of the novel draws upon such instances of confusion and turmoil. In conclusion, this type of modal patterning highlights the struggles of the narrator and emphasises a negative shading.

The dilemma of how she should behave as opposed to how she wants to be and ultimately chooses to be is portrayed through the use of negative shading as well. After she returns from the games, Katniss sees Effie, Haymitch and Cinna for the first time and runs towards them. "Maybe a victor should show more restraint, more superiority, especially when she knows this will be on tape, but I don't care" (Collins, 2008) She is unsure if she should run or walk towards them, but she follows her emotions and acts accordingly.

It does seem that the text highlights the depth of Katniss' ability to trust and the manifestation of her doubts. She finally lets go of her doubts and misgivings about Peeta: "Peeta, who's been wounded, is now my ally. Whatever doubts I've had about him dissipate," although not because he has gained her trust but because "if either of us took the other's life now we'd be pariahs when we returned to District 12" (Collins, 2008). Seeking comfort from her

horrific surroundings is another issue for Katniss as she doubts and wrestles with the authenticity of those who surround her and her immediate environment. When she sees the moon towards the end of the games, she longs for it to be the moon she sees “from the woods around District 12” because it would give her something to hang on to in “the surreal world of the arena where the authenticity of everything is to be doubted”. Under duress and being hunted in the midst of a world that is actually an engineered arena where anything is possible, continually causes Katniss to deliberate and examine everything she encounters.

In the novel, any unrestricted streams of information that can freely pass between the districts are totally prohibited. Each district is unaware of what happens in another district. This lack of communication is part of the Capitol’s propaganda to oppress the people of Panem. During the games, Katniss forms an alliance with Rue, a 12-year-old contestant from District 11. Rue shares about their severe living conditions and harsh punishments. Katniss realises how little she knows about the people in other districts. She wonders if the Gamemakers are “blocking out” their conversation because “even though the information seems harmless, they don’t want people in different districts to know about one another” (Collins, 2008). This notion of alienation is preponderant in dystopian novels. It suggests that the nature of circumstances in a dystopian novel creates an environment of suppression instead of assertion. In turn, a prevalent positive shading is prevented.

As the protagonist of the novel, Katniss certainly possesses strong personality traits, which to a large extent, have helped her survive the ordeals of her life and of the Hunger Games. She knows that it is not her “nature to go down without a fight, even when things seem insurmountable”. These traits are reflected in instances such as when Katniss’ father dies and her family is on the brink of starvation, and she hunts and provides for her family; when Prim is selected, Katniss quickly volunteers in her stead and when either she or Peeta has to die at the end of the Hunger Games, she changes the situation to her advantage by suggesting that they both eat poisonous berries. Katniss grapples with her surroundings but does all that she can to come out victorious. Ultimately, the elements of a negatively shaded text triumph that of a positively shaded one in *The Hunger Games*.

To sum up, the usage of deontic and boulomaic modalities creates a positive shading, which interjects this dystopian novel with positive depictions. However, epistemic modalities are foregrounded and depict a stronger negative shading. Although there are not many occurrences of the perception modality in the novel, they are still important as they contribute to the overall shade of the novel (Parina, 2014). The findings correspond with Bronia (2005), who stated that through the purposeful practice of language and critical analysis of a given genre, linguistic awareness can be created. More specifically, it shows that the preference for a particular modal system in a narrative affects the shading of a text.

## CONCLUSION

The results of this study are important because they show that the assimilation of how utterances are orientated, formed and measured into discourse is mainly highlighted by the grammatical system of modality. Knowledge of this aspect enables comprehensive linguistic awareness of the linguistic modality in point of view. Some modals function in more than one modality, causing an overlap between categories. This was resolved by looking at the context in which each modal occurs to interpret which meaning is expressed. Occurrences of positive shadings using deontic modality are often followed by either epistemic or perception modalities to cast a negative shading. Hence, it appears to create a more profound sense of confusion and disorientation.

The results of the analysis show that there is significant evidence of use of the deontic, boulomaic and perception modal systems in the novel. However, epistemic modalities are frequently used, signifying the limited knowledge of the narrator and protagonist, Katniss Everdeen. It causes her to rely on inferences that are made based on references to external signs. As epistemic modality markers clarify the degree of knowledge, the belief system as well as the attitudinal stance of the narrator concerning the probability of propositions and events, it is evident by their abundant use that the narrator is constantly trying to understand her evolving surroundings in this novel.

Another aim of this study was to determine the dominant modality shading

employed in the novel that governs the point of view. *The Hunger Games* is found to have a prevalent negative shading. The findings of the study correlate with Simpson's (2005) claim that the 'feel' of a text is determined not just based on how the novel unfolds, but from the manifestations of modality in relation to point of view. Thus, in this post-apocalyptic dystopian novel, there are preponderant notions of alienation and steady streams of events that cause perplexity and bewilderment. This provides an overall negative shading that corresponds with the oppressive state of post-apocalyptic dystopian novels as opposed to postulations of assertiveness and hope. In sum, the narration does reflect the character.

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## **Patterns of Translation of Sadness Metaphors from Persian into English: A Cognitive Analysis**

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### **ABSTRACT**

The preservation and reproduction of a source metaphorical expression in the target language is a problematic challenge for translators. The aim of this study is to examine the translation of emotive metaphorical expressions of sadness from the Persian novel “Savushun” into English. Emotive metaphorical expressions relating to sadness from the source text and two target texts are identified. Subsequently, the conceptual metaphors underlying the metaphorical expressions in the source text and the target texts are investigated. Using the framework of metaphor identification procedures (MIP), and conceptual metaphor theory (CMT), the study attempted to identify the patterns used in the translation. The particular concern is whether the translations of the metaphorical expressions from the source text are instantiations of same conceptual metaphor as in the source text; instantiations of a different conceptual metaphor; or the neutralization of the metaphor. This paper presents the preliminary results of the translation patterns of metaphors that have been identified.

*Keywords:* Cognitive analysis, conceptual metaphor, metaphorical expressions, translation patterns

### **INTRODUCTION**

Translation is the communication of the meaning of a source-language text by means of an equivalent target-language text, and due to its challenging nature, the translation of metaphor, in turn, is one of the most controversial issues of this field. Translators use figures of speech extensively in nearly all situations where they need to communicate effectively because figures of speech are regarded as the primary and principal sources of expressiveness, both in literature

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and in everyday communication. With regard to the significance of this concept, translators ought to pay their highest attention to the important figures of speech, among which metaphor is a significant issue in translation. According to Newmark (1980), translation of metaphors is the most problematic issue in translation theory, semantics and linguistics. He also states that problems in translation usually come out due to cross-cultural differences. As translation is regarded as a sociocultural task and deals with both cultural and linguistic factors, the translators generally encounter various types of problematic issues including the translation of metaphors as well. Therefore, the translatability of a metaphor from the source language (SL) to the target language (TL) heavily depends on the specific cultural experiences it utilizes. Moreover, the extent to which cultural experiences can be replicated in the TL depends on the intensity of the overlap between the two languages and cultures. This paper aims to examine the accuracy of translation of emotive metaphorical expressions from Persian to English. In this study, emotive metaphorical expressions with regard to sadness from the source text and two target texts are identified. Subsequently, the conceptual metaphors underlying the metaphorical expressions in the source text and the target texts are investigated based on the general framework of CMT and MIP that were proposed by Group (2007). Finally, translational equivalences of these metaphorical expressions were examined to determine the translation strategies employed by the translators.

### **Cognitive Perspective on Translation of Metaphor**

Lakoff and Johnson (1980) began the cognitive study of metaphors. The study of cognition is generally related to the processing of cognitive information so that translation is a cognitive process as well. Since the process of translation involves complicated tasks in the mind, it is not merely language transference but it is of course a mental complex activity. Therefore, the analysis of the process of translation incorporates the examination of the basic mental process involved. Cognitively, translation of metaphors is regarded as a cognition-oriented mental process in which the human brain untangles and passes on the cognitive information of the target metaphor. It is very difficult to translate the concepts and conceptual metaphors from the SL to the TL. Lakoff (1987) believed that an accurate translation from one language to another was impossible when two languages have thoroughly incompatible conceptual systems. In fact, accurate and reliable translation requires close relationships between the two conceptual systems. Lakoff (1987) made a difference between translation and understanding. It is often possible to translate the concepts for well-structured universal experiences, and their understanding is to some extent trouble-free, if not immediate; however, metaphorically defined concepts generate more problems for the translators. Lakoff (1987) stated that each language included an enormously wide range of metaphorically defined concepts and their corresponding expressions.

A number of studies have been conducted regarding the translation of metaphors based on the cognitive linguistic approach. Some studies (see Al-Zoubi and Al-Hasnawi 2007; Mandelblit, 1995; Maalej, 2002; Schäffner, 2004) distinguish between similar mapping condition and different mapping condition. In the similar mapping condition case, the source language and the target language use an identical metaphor to conceptualize a specific notion, whereas in the different mapping condition case, both the source language and the target language conceptualize a specific notion employing a different metaphor. Mandelblit (1995) dealt with the process of translation using translators' reaction time as a criterion that displayed the differences in translation process between the similar mapping condition and the different mapping condition situations. The studies conducted by Maalej (2002), and Mohammad, Mohammed, and Ali (2006) were product-oriented offering several sets of examples that revealed how translation products depended on similar mapping conditions and different mapping conditions. In another important study, Schäffner (2004) reviewed some of the implications of a cognitive theory of metaphor while translating metaphors from the source language to the target language. Schäffner (2004) made an attempt to include conceptual metaphor theory in the study on metaphor translation. She commented carefully and clearly that through the conceptual metaphor theory, translatability should no longer be a question of the

individual metaphorical expression since it was identified in the source text that linked it to the level of conceptual systems in the source and target culture. What these studies have in common is the conclusion that metaphoric expressions based on metaphors shared by source language and target language are more readily translatable than those based on metaphors that only exist in SL, as the translation of the latter involves a conceptual shift, i.e. a transfer from one way of conceptualizing an aspect of reality to another.

Although the researchers have paid great attention to translation of metaphors from a cognitive perspective, the literature indicates there are still aspects rather unexplored in this area. Actually, the main aim of the present study is to explore the translation of emotive metaphorical expressions of sadness in a work of literature. For this purpose, a literary work named "Savushun" and two English renderings of it were examined. As far as universal metaphors are considered, they don't pose any challenge or problem for the translator because they convey the same concept and emotion in different cultures and languages. However, the problem arises when these emotive metaphorical expressions are culture-specific. They are metaphorical expressions that have different connotations and meanings in different cultures, and they may be absent in some cultures and languages. The present study uses the Cognitive Translation Hypothesis (CTH) framework to analyze the patterns of translation of metaphor in terms of the cognitive equivalence in the translation of

metaphorical expressions of sadness in the Persian source text and the English target texts. The general framework of CMT is adopted as it provides a systematic way of deducing conceptual representations and organization from linguistic expressions. The underlying theoretical assumption of CMT allows the translators to link metaphorical expressions to underlying conceptual metaphors and hence the position of the conceptual mappings between the two conceptual domains. The conceptual metaphor theory proposes a new view that the study of metaphor is not simply a matter of finding linguistic correspondences between two different languages; it involves discovering mutual relationships between two conceptual systems corresponding to two different cultures. In the cognitive linguistic view, metaphor is defined as understanding one conceptual domain in terms of another conceptual domain. So we understand life in terms of journey, ideas in terms of food, social organizations in terms of plants, and so on. Cognitive linguists

suggest that thinking about abstract concepts is facilitated in terms of more concrete concepts. According to Kövecses (2002), in conceptual metaphor, CONCEPTUAL DOMAIN (A) IS CONCEPTUAL DOMAIN (B). A conceptual metaphor consists of two conceptual domains in which one domain is understood in terms of another. These two domains are source domain and target domain. He defines source domain and target domain as “the conceptual domain from which we draw metaphorical expressions to understand another conceptual domain is called source domain, while the conceptual domain that is understood this way is called target domain” (Kövecses, 2002). The source domains are more concrete and more clearly delineated concepts while the target domains are more abstract and less delineated ones (Kövecses, 2002). Consequently, the cognitive view of metaphors provides a novel approach to investigating the translation of metaphor. The theoretical framework for the present study is depicted in Figure 1.

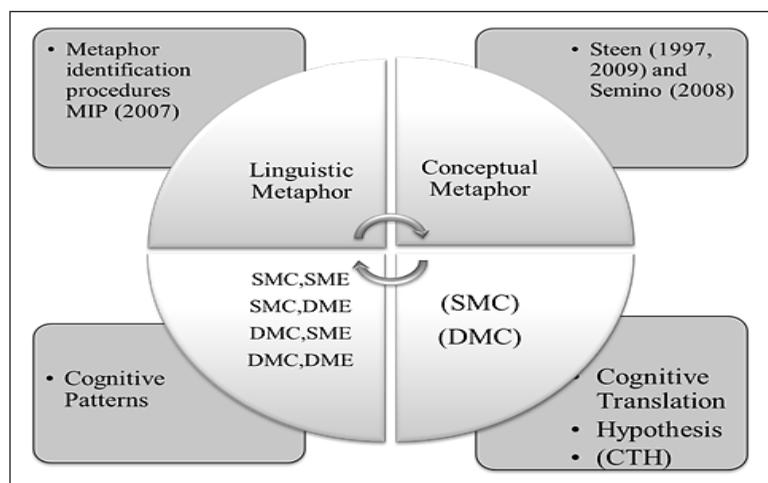


Figure 1. Theoretical framework

Figure 1 shows how it is possible to find the patterns of translation of metaphorical expressions based on MIP and CMT. In summary, the procedure of the conceptual framework in this study comprises the following steps:

1. Understand the overall meaning of the source text and the two target texts.
2. Create a potential metaphorical item at the linguistic level in the texts.
3. Determine the metaphoricity of the lexical units by:
  - (a) Establishing the meaning in context, that is, contextual meaning, by reading the concordance lines of each lexical unit,
  - (b) Determining the basic meaning,
  - (c) Deciding whether the contextual meaning contrasts with the basic meanings but can be understood in comparison with it.
4. If yes, mark the lexical unit as metaphorical.
5. Infer the conceptual metaphor according to Steen's recommendation: "if metaphor in discourse can be explained by means of an underlying cross-domain mapping in conceptual structure, then it should be possible to move from the linguistic forms in the text to the conceptual structures that capture their meaning in some ordered fashion" (Steen, 2009).
6. Identify the translation of the source linguistic metaphors by aligning the source texts and the target texts.
7. Establish whether the translation is metaphorical and, if so, what conceptual metaphor realizes. It is possible that following translation approaches represent variations in translation, advancing from similar mapping conditions and moving to different mapping conditions:
  - (a) Similar mapping condition and similar metaphorical expression. The (SMC, SME) shows that the translations of these metaphorical expressions are easier than the other one. Since both languages have the same metaphorical expressions with the same image, topic and the same point of similarity, the translation of these metaphors would create a similar effect in the target language. These identical metaphors often have the same mapping conditions, i.e., the conceptual metaphors underlying them are the same in the source language and the target language.
  - (b) Similar mapping condition with different metaphorical expression. The (SMC, DME) shows that there are some similar metaphors in the target

text while they have different linguistic forms. These similar metaphors are culturally equivalent, that is, they express the same concepts in different ways. So they have the same metaphorical meaning and the same conceptual metaphors.

- (c) Different mapping condition and similar metaphorical expression. The pattern (DMC, SME) revealed that two languages have different linguistic forms and similar conceptual mapping with the same metaphorical meaning. So, the conceptual metaphors underlying these linguistic metaphors are not the same, but these metaphors show the same concepts and metaphorical meanings with different linguistic forms.
- (d) Different mapping condition with different metaphorical expression. This pattern (DMC, DME) shows that there are some different metaphors in the source language that the target language may lack because each language has its own different conceptual metaphors. These metaphors often cause some problems for the translator

This typology serves as a starting point for identifying patterns of translation

from Persian to English data. Within the current study, the cognitive equivalence concept is deemed helpful as well since the researcher seeks to find such equivalence between emotive metaphorical expressions as conceptual structures between the English and Persian manuscripts. It is supposed that the Persian and English texts would share similar conceptualization of sadness as this is a universal concept, while differences may arise at the occurrence of special metaphorical expressions due to cultural specificity. It is also assumed that similarities reflect a common conceptual ground that would be more evident in common expressions.

## METHODS

### Data Collection

The data for this study was obtained from the Persian novel 'Savushun' written by Simin Daneshvar and the two English translations, one by M. R. Ghanoonparvar (Savushun, A Novel About Modern Iran) and the other by R. Zand (A Persian Requiem). This novel was chosen as the source of research because it contains a highly metaphorical language. For the purpose of this paper, only emotive metaphorical expressions of sadness in the source text and the target texts are examined. In total, 36 different metaphorical expressions relating to sadness were extracted from the source text, 35 of them were translated in the target texts. In this paper, because of the large number of metaphorical expressions, some cases of linguistic expressions will be discussed to illustrate the application of the MIP

and CMT framework in the translation of metaphors. In terms of the procedure of the data collection, in the first stage, the data was obtained by collecting the Persian metaphorical expressions from the aforementioned novel. In the second stage, the English equivalents of the expressions in the two English translations of the novel were identified. Based on the MIP of the Group (2007), the following steps were followed in the identification of metaphorical expressions from the source text and two target texts at the linguistic level:

1. Reading the source text and the translation text carefully.
2. Identifying potentially metaphorical lexical unit in the source text and the target texts.
3. (a) Determining the contextual meaning for each lexical unit in the source text and the target texts.  
(b) Searching for a more basic meaning of each lexical unit in the source text and the target texts.  
(c) Comparing the contextual meaning and the basic meaning of the lexical units and determining the extent to which they contrast.
4. If yes, mark the lexical unit as a metaphorical.

The rationale for this method is that a disparity between the contextual implications of a lexical element and its more fundamental connotation gives rise to metaphorical meaning. The fundamental

connotation is missing from the real situation but is apparent in other contexts. A lexical unit is recognized as metaphorical if one is able to map between the basic and contextual meaning and contrast between them. Therefore, it is crucial to make use of dictionaries to establish the fundamental connotation of a lexical element. In resolving the semantics of the lexical unit, the researchers relied on the Dehkoda Dictionary (Dehkoda, 1999) and Aryanpur Bilingual Dictionary (Aryanpur-Kashani, 1986), as well as the Macmillan English Dictionary for Advanced Learners of American English (Rundell, 2002). The lexical analysis used in this study allowed for the investigation of the relationship between the linguistic expressions and the conceptual metaphors in the source language, and in turn, its influence on the transfer of the conceptual metaphor to the target language. As mentioned earlier, the aim of the present study was to investigate the equivalents for the translation of emotive metaphorical expressions in the target texts (TTs) and discover the translation strategies used by the translators. After matching the translated English texts to the source text, each pair of ST and the two TTs were dealt with individually. Having located the Persian metaphors in the source text, the researchers examined the target text for the corresponding metaphorical expressions. This was sometimes problematic since the structure of the TT may change in certain cases, thereby displacing the corresponding Persian expressions, or the expressions were often adapted or omitted that create some

confusion in locating them. Close reading of both ST and the two TTs was necessary so as not to overlook any translated expressions. Finally, based on the analysis of the metaphorical expressions and the conceptual metaphors in the source text and the target texts, the similarities and differences of these two levels were explicated.

## RESULTS AND DISCUSSION

As mentioned in the previous section, in order to analyse the data, emotive metaphorical expressions relating to sadness from the source text and two target texts were investigated, and the conceptual metaphor underlying the metaphorical expressions in the source text and the target texts were identified. Because of the large number of metaphorical expressions, only some cases of linguistic expressions will be discussed in this paper to illustrate how the emotive metaphorical expressions in the Persian were translated into English by the two translators. Some of the examples are:

### 1. ST (page 23):

اگر باران نبارد عزا می گیرد  
می گیرد / عزا / نبارد / باران / اگر

Transliteration:

agar / baran / nabarad / aza /  
mi-girad  
if / rain / doesn't / mourning /  
take

Literal translation:

“If it does not rain, he will be mourning”.

1a: If it doesn't rain, he gets depressed. (TT1 page 38)

1b: If it doesn't rain, he gets really upset. (TT2 page 18)

### 2. ST (page 18):

دل من از این جنگ خون خون است  
است / خون / خون / جنگ این / /  
از / من / دل

Transliteration:

del / man / az / in / jang / khon-e-  
khon / ast  
heart/ my / of / this / war /  
blood-of-blood/ is

Literal translation:

“My heart is blood of blood of this war”.

2a. I, for one, have a heavy heart because of this war. (TT1 page34)

2b. He was heartily sick of the war himself. (TT2 page13)

### 3. ST (page 96):

انگار کسی جنگ انداخته دلم را می فشارد  
فشارد - می / را / م - دل / انداخته /  
جنگ / کسی / انگار

Transliteration:

engar / kasi / chang / andakht-e /  
del- am / ra / mi-fesharad.  
suppose/someone/claw / throw /  
heart-my/ Do Marker/ press

Literal translation:

“as if someone clawed my heart and crushed it”

3a. It is as if someone is grabbing my heart and pressing it. (TT1 page109)

3b. I feel as if someone is choking me. (TT2 page88)

4. ST (page106):

زری به درد دلش گوش می داد  
می / داد / گوش / ش دل / درد /  
به / زری

Transliteration:

Zari / be / *dard-el del* -ash / gosh  
midad  
Zari/ to / *pain-of/heart-she* / listen

Literal translation:

she listens to her pain (in her) heart.  
4a. Zari listened to her complaints.  
(TT1 page 119)  
4b. Zari listened to her complaints.  
(TT2 page 97)

5. ST (page 111):

دلش خیلی پر است  
است / پر / خیلی / ش - دل

Transliteration:

del-ash/kheili/*por* / ast  
heart-his/ very / *full* / is

Literal translation:

His heart very full.  
5a: His heart is heavy. (TT1  
page124)  
5b: His heart is heavy. (TT1  
page102)

By applying the MIP, it was possible to determine the lexical units which were the sources of metaphors in each of the expressions (these are in italicized). The discussion below focuses on each example and its translations.

In (1) *agar baran nabarad aza mi-girad* the lexical unit *aza-mi-girad* (mourning) is identified as a potentially metaphorical

item. The contextual meaning of *aza-mi-girad* in the context of the expression refers to an unhappy person. According to the Aryanpur Bilingual Dictionary (Aryanpur-Kashani, 1986), the basic (non-metaphoric) meaning of *aza-gereftan* is “the process or ceremony of expressing great sadness with especial black clothes that are worn as a sign of respect for someone who has died”. When the contextual meaning is compared with the basic meaning of *aza-mi-girad*, it is noticed that there is a contrast. The basic meaning of *aza-mi-girad* in Persian refers to a ceremony with people wearing black clothes as a sign of sadness. This is in contrast with the meaning of *aza-mi-girad* in (1) where the context is where a person has a gloomy mood because it does not rain. This metaphor is very common in Persian. Since the literal meaning of the mourning metaphor makes no sense for non-native speakers and may cause misunderstanding, this kind of metaphor must be translated with an expression with metaphorical meaning to avoid misinterpretation in another culture. According to the Dekhoda Persian Dictionary, in Persian culture, the expression *aza-gereftan* sometimes may be used for fear of losing something or of something bad happening in life, or fear of being in lack of something. In Persian there are many other metaphorical expressions in which the intensity of sadness is expressed with mourning. For example, in Persian we say ‘*I mourn because I lost my job*’, ‘*I mourn because I failed in math exam*’ or ‘*he mourns the lake of rain*’. In the context of the story, one of the characters is a farmer

who is mourning because it does not rain. This expression expresses the significance of water and rain in most Persian societies. Many Persian societies are destined to live in arid searing lands where water and rain are the most valuable elements of life. The association between rain and happiness can be attributed to the pleasure and joy because of its importance to human beings, animals, plants and crops. Rain represents a source for joy and blessing for the farmers and plants, and it affects all people and creatures that it falls upon. Consequently, the expression *agar baran nabarad aza-mi-girad* (lit: If it does not rain, he will be mourning) is used metaphorically to denote the sadness of somebody who does not have something he longs for. In Persian culture *aza-gereftan* (lit: mourning) is usually associated with negative emotions. This metaphor is very common in Persian. Hence, the conceptual metaphor **SADNESS IS MOURNING OVER THE LACK OF AN ENTITY** is also instantiated by the linguistic expression *agar baran nabarad aza mi-girad*.

The translations of the metaphorical expression in (1) are retrieved by aligning the source context and the target contexts and are represented below (1a) and (1b):

1. Agar/ baran/ nabarad / aza / mi-girad

if / rain / doesn't / mourning / take

1a. If it doesn't rain, he *gets depressed*.  
(TT1 page 38)

1b. If it doesn't rain, he *gets really upset*.  
(TT2 page 18)

The analysis of the English translation data follows the analysis of the Persian data and involves a sequence of MIP steps. In the target text (1a) and (1b), the lexical units *depressed* and *upset* are not considered as potentially metaphorical items because the contextual meaning of the lexical units are similar to their basic meaning. The use of the expressions 'gets depressed' and 'gets really upset' in the translations to express sadness represent the translations using literal expressions. In fact, both translators used the meaning of the source metaphorical expression without retaining the metaphor. In addition, the English translations, '*If it doesn't rain, he gets depressed*' and '*If it doesn't rain, he gets really upset*' represent non-metaphorical translations of the original metaphorical expressions *agar baran nabarad aza mi-girad*. In the translated versions, there is no lexical unit with potentially metaphoric meaning. In fact, both translators used non-metaphoric renditions of the source metaphorical expressions. Both translators use literal translation to transfer the concept of sadness with different non-metaphorical expression.

Consequently, the English translations do not achieve an equivalent metaphor to the source text and the translators have lost the metaphorical image of the source metaphor in their translation.

In (2), *del man az in jang khon-e-khon ast*, the lexical unit *khon-e-khon* (Lit: blood of blood) is identified as a potentially metaphorical item. The contextual meaning of *khon* (lit: blood) in the context of the expression refers to sad feelings. The basic

meaning of *khon* (lit: blood) based on the Aryanpur Bilingual Dictionary is “fluid which flows in the veins and arteries”. When the contextual meaning is compared with the basic meaning of *khon-e- khon*, it is noticed that the contextual meaning contrasts with the basic meaning. In Persian culture, the heart also plays an important role in expressing utmost sorrow. Hence, the heart is often seen as the place where emotions are located. In (2), sadness is considered as blood in the heart of a sad person, which leads to the metaphorical mapping “**HEART FULL OF BLOOD STANDS FOR SADNESS**”. In this example *delam khone khon ast* (my heart blood of blood), the term blood has been repeated two times which shows the intensity of the pressure in the heart to express extreme sadness or depression. Persian uses many heart metaphorical expressions with the emotional meaning of sadness. In this metaphor, heart is considered as being hollow but filled negative emotion. In Persian, there are many other metaphorical expressions in which the intensity of sadness is expressed with blood metaphors. For instance, the expressions ‘*His heart full of blood*’, ‘*His heart full of tears of blood*’, ‘*He pours blood to his heart*’, ‘*He eats his heart’s blood*’, ‘*He gives heart’s blood to him*’, ‘*He cries blood*’, ‘*He has a bloody heart*’. It seems that in Persian, there is a conceptual metaphor SADNESS IS BLOODINESS. It seems that in many emotional metaphors expressing sadness, the heart is associated with blood. Consequently, *blood* in Persian metaphorical expression is a symbol of sadness. On

the other hand, the Persian metaphorical expression, *del man khon-e- khon ast* (lit. My heart is blood of blood), means that my heart full of blood. It is assumed that being upset is conceptualized as making a wound in one’s heart and making it bleed. In fact, the metaphorical expression *del man khon-e- khon ast* represents another conceptual pattern **HEART IS A CONTAINER FILLED WITH BLOOD**. The translation of (2) is provided in (2a) and (2b):

2. *del / man / az / in / jang / khon-e- khon / ast*

heart/ my / of / this / war / blood-of- blood / is

2a. I, for one, *have a heavy heart* because of this war.

2b. He was *heartily sick* of the war himself.

In (2a) the lexical unit *heavy* is considered as a potentially metaphorical item. In this context, the contextual meaning of the lexical unit *heavy* refers to very strong emotion of sadness. According to the MacMillan English Dictionary, *heavy* basically means “*weighs a lot*”, for example, heavy clothes, heavy shoes, heavy machines and so on. This definition denotes that the lexical unit *heavy* is used for something that weighs a lot, while the contextual meaning *heavy heart* means *very sad*. For instance, when we say *my heart is very heavy*, it means my heart is weighed down by sad feelings or burdens. Thus, the translator in (2a) has used a metaphorical item within the context, and translated the Persian

expression *delam khone khon ast* (lit: my heart is blood of blood) is translated into the English expression *'I have a heavy heart'*. The translation does not render the source metaphor closely. In the translation *'I have a heavy heart'*, the same element, namely the heart, is utilized to carry the strong feeling. However, the translator has created a new metaphorical expression. In the case of (2a), there is a shift in the metaphorical expression as well as the conceptual metaphor. Instead of the expression *'my heart is bloody'*, the translator has highlighted the burden of sadness that affects the heart. In view of the above, it can be concluded that the conceptual metaphor **SADNESS IS BURDEN** is realized by the rendered expression *have a heavy heart*.

In (2b), the lexical unit *sick* is also considered as a potentially metaphorical item. The lexical unit *sick* in the context of the expression means 'feeling downcast and disheartened and hopeless'. The English expression connotes illness because *sick* basically means 'feeling unwell'. Consequently, in this context, there is a contrast between the contextual meaning and the basic meaning. In this example, the translator has used a different though related metaphorical expression. The Persian expression *del man khon-e-khon ast* (lit: My heart is blood of blood) is translated in (2b) as 'He was heartily sick of the war himself'. A non-equivalent word combination is chosen to translate *khone khon* (blood of blood) in the source context. So, the English translation in (2b) demonstrates the emotional state of sadness which is

related to illness by the nonequivalent linguistic expression. However, the Persian expression represents the emotional state of sadness which is related to fluid in a container. In (2b), the concept of the original metaphorical expression is lost because the translator used a non-equivalent expression. Consequently, the translator in (2b) utilises the conceptual metaphor **SADNESS IS ILLNESS** in contrast to the source metaphor **SADNESS IS A HEART FULL OF BLOOD**. The English expression shows that the translation does not follow the source expression closely. The translators in (TT1 and TT2) draw different source domains of sadness by a different linguistic realization.

In (3), *engar kasi chang andakht-e delam ra mi-fesharad* (lit: as if someone clawed my heart and crushed it), the compound *chang andakhtan* is considered as a potential metaphorical item. In this context, the contextual meaning of the compound *chang andakhtan* (lit: clawed and threw) refers to deep sorrow that can feel like being wounded. In addition, in the lexical-view in the Persian language, the emotional state of deep sadness has the characteristic of animal behaviour- it can claw out the heart and crush it, and this act is destructive. The basic (non-metaphoric) meaning of *chang andakhtan* (lit: clawed and threw) according to the Aryanpur Bilingual Dictionary (Aryanpur-Kashani, 1986) is "to attack someone, or to try to cut or tear something using claws". So, in this context, the contextual meaning contrasts with the basic meaning. In the expression, the lexical

unit *chang andakhtan* (lit: clawed and threw out) is used to express feelings of deep sadness. The metaphor reflects the concept of CAUSE and EFFECT, where the agent *kasi* (lit: somebody) influences the object to experience the feeling of sadness through his aggressive animalistic behaviour. It seems to attack the heart, throwing its claws on it, and crushing it so hard as to make breathing difficult. The heart consequently feels pain. The physical pain is mapped onto a psychological suffering which leads to a feeling of sadness and depression. Therefore, the expression reflects the conceptual metaphor **SADNESS IS AGGRESSIVE ANIMAL**. The translation of (3) is provided in (3a) and (3b):

3. engar / kasi /chang / andakht-e /  
del- am / ra / mi-fesharad.

As if / someone/ claw / throw /  
heart-my / Do Marker / -press-

3a. It is as if someone is grabbing my  
heart and pressing it.

3b. I feel as if someone is choking me.

In (3a), the expression *It is as if someone is grabbing my heart and pressing it* is used metaphorically. In this context, the translator has used a similar lexical unit *grab* as the translational equivalent of *chang andakhtan* (lit: clawed and threw) in the source text. In this context, the contextual meaning of the lexical unit *grab my heart* refers to *deep grief*. In terms of physiology, a very sad person has a deep hurt inside that crushes his heart and his spirit. The basic meaning of *grab* according to the MacMillan English

Dictionary is “try to take hold of something in a rough or rude way”. So, it is clear that there is a contrast between the contextual meaning and the basic meaning, rendering the use of *grab* within the metaphorical context. In this case, the translator has used similar concepts related to the metaphorical expression. The English expression *It is as if someone is grabbing my heart and pressing it* demonstrates the rendered expression which describes animal behaviour as the source expression *chang andakht-e* (lit: claw threw). Moreover, the expression *It is as if someone is grabbing my heart and pressing it* in English are literal equivalents of *engar kasi chang andakht-e delam ra mi-fesharad* (lit: as if someone clawed my heart and crushed it) in Persian. Hence, the conceptual metaphor “**SADNESS IS AGGRESSIVE ANIMAL**” is also instantiated by the linguistic expression ‘It is as if someone is grabbing my heart and pressing it’ in target text 1 (3a).

In (3b), the lexical unit *choking* is considered as a potentially metaphorical item. In this context, the translator has used a different lexical unit *choke* as the translational equivalent of *chang andakhtan* (lit: claws throw) in the source text. The contextual meaning of the lexical unit *choking* refers to strong, sad feelings. The basic meaning of *choke* according to the MacMillan English Dictionary is “a physical action to squeeze someone’s neck so s/he cannot breathe”. So, it is clear that there is a contrast between the contextual meaning and the basic meaning, rendering the use of *choke* within the metaphorical

context. In this context, the translator has used a different thought related to the metaphorical expression. By using the expression, *as if someone is choking me* instead of *engar kasi chang andakhte dalam ra mifesharad* (lit: as if someone clawed my heart and crushed it) the translator has provided a different conceptualisation of sadness. Hence, the conceptual metaphor “**SADNESS IS A DYNAMIC FORCE THAT CAN HURT**” is also instantiated by the linguistic expression as *if someone is choking me* in target text 2 (3b). The above examples show that both translators applied different strategies in the translation of this metaphorical expression. In example (TT1) the translator has employed a lexical equivalent for each word from the source text. In fact, the translator has used the exact or an equivalent concept from the source text. The translation hence relies on similar metaphorical expression with similar mapping condition. While, in the (TT2) the translator has changed the linguistic structure with a different interpretation of the source metaphorical expression.

In (4) *Zari be dad-e del-ash gosh-midad* the lexical unit *dard* (lit: pain) is considered as a potentially metaphorical item. *dared del* is a compound in Persian made up of the morphemes *dard*, meaning ‘pain’, and *del* meaning ‘heart’. The compound as a whole is literally glossed in English as *pain of heart*. The contextual meaning of *dard* (lit: pain) in this context refer to heartache. The basic (non-metaphorical) meaning of *dared del* (lit: pain of heart) according to Aryanpur Bilingual Dictionary (Aryanpur-Kashani,

1986) is as “bodily suffering in a specifically psychological sense”. Comparing the contextual meaning and the basic meaning of *dared del* (lit: pain of heart), it is found that the contextual meaning contrasts with the basic meaning. Hence, the lexical unit *dared* (lit: pain) is marked as a metaphorical item. The metaphorical expression *Zari be dade delash gosh midad* (lit: she listens to her pain heart) reflects a conceptualization of the heart as a container for the emotional states of sadness. Here, the person’s heart is considered as a container for pain and grief and when he is sad, this container is filled with them. In fact, when a person expresses his heart’s pain to another, the heart can be emptied of negative emotion. It should be noted that the metaphorical expression *dared-del* in Persian reflects the conceptualization of ‘*gham o ghoseh*’. Sharifian (2011) observes that in the everyday experiences of Iranian people, ‘*gham o ghoseh*’ captures a whole range of emotional states that one goes through from being hurt by what someone else has said, to being away from family, or even having financial difficulties. Very frequently people express these emotional experiences during speech events that are known as *dard-e del* (lit. Pain of the heart), which provide emotional spaces where they can find relief in communicating their *gham o ghoseh*. In this sense, it is a virtue to listen to and share others *gham o ghoseh* (lit: grief and heartache). On the other hand, the expression *dared del* (pain of heart) also compatible with the conceptual metaphor of **SADNESS IS PAIN**. The translation of (4) is provided in (4a) and (4b):

4. Zari / be / *dard-e / del- ash* / gosh / midad

Zari/ to / *pain-of/ heart-she* / listen/

4a. Zari listened to her complaints. (TT1 page 119)

4b. Zari listened to her complaints. (TT2 page 97)

In (4a) and (4b), the English translations show that both translators have used a similar strategy to translate the metaphorical expression in the source text. In the translated version, the source metaphorical expression *Zari be dard delash gosh midad* is translated into '*Zari listened to her complaints*'. In the English context, there is no lexical unit with a potentially metaphoric meaning. Considering the context of the target texts, the translators used a non-metaphor rendition of the source metaphorical expression. In the English translation, the expression *dard del* (lit: pain of heart) is altered to '*complaints*'. In this context, there is no hidden meaning that needs to be uncovered. Macmillan English Dictionary translates '*complaints*' as "a written or spoken statement in which someone says they are not satisfied with something". No difference is found between the contextual meaning '*complaints*' and the basic meaning as the back rendition does not show the concept of sadness. A possible reason for this change is that cultural differences in conceptualizing emotions have created a problem for the translators. Hence, the English translation does not succeed in achieving the same concept of sadness

as the source metaphorical expression. The English translations indicate that both translators have used a similar strategy to translate the metaphorical expression in the source text. A possible explanation for the English renditions is that the translators might regard such conceptualizations of sadness as too exaggerated for use in the target language, so both translators opt for a literal translation as the more conventional way of rendering the source metaphorical expression.

In (5), the metaphorical expression '*delash kheili por ast*' the lexical unit *por* (full) is identified as a potentially metaphorical item. The contextual meaning of *por* (Lit: full) in this context refers to the intensity of sadness. In the story, one character has great sadness for a long time in his heart. This metaphorical expression shows that the heart can be full of a negative emotion in the case of sadness. The basic (non-metaphorical) meaning of *por* (full), according to Aryanpur Bilingual Dictionary (Aryanpur-Kashani, 1986), is "a lot of something in a container or place". Comparing the contextual meaning and the basic meaning of *por* (full), a contrast is found between the two. It becomes clear that this metaphor is based on a metonymic understanding. The expression reveals that *del* (heart) is the seat of feeling. In this metaphorical expression *delash kheili por ast* (lit: His heart very full) the heart has the image of a container that can be full of sorrow. Here the container metaphor is linked to the metaphor of sadness. Since the intensity of sadness is

considered as a liquid filling up the heart, the linguistic metaphor *delash kheili por ast* (his heart is very full) shows that conceptual metaphor of **SADNESS IS A FLUID IN A CONTAINER**. The translation of (5) is provided in (5a) and (5b):

5. del-ash / kheili / por / ast

heart-his/ very / full / is

5a. His heart is *heavy*. (TT1 page124)

5b. His heart is *heavy*. (TT2 page102)

In the target (5a) and (5b), the lexical unit *heavy* is considered as a potentially metaphorical item. In the English translations, both translators have used the same lexical unit *heavy* to translate the metaphorical expression in the source text. The contextual meaning of the lexical unit *heavy* refers to the intensity of the emotional state of sadness. The basic meaning of the lexical unit *heavy* in the MED refers to “large weight of an object”. Consequently, in these contexts there is a contrast between the contextual meaning and the basic meaning, rendering the use of *heavy* as metaphorical within the context. The use of the expression *His heart heavy* in the translation provides a new metaphorical expression. The expression *heavy heart* describes someone who has a heart weighted down by sorrow. In choosing the linguistic expression *His heart was heavy* in the (5a) and (5b), both translators have changed the source of the conceptual metaphor by employing a different metaphorical expression. By using the word *heavy* instead of *kheili por* (lit: very full), both translators

have shifted the concept of sadness from the container metaphor to the down metaphor. Hence, the conceptual metaphor **SADNESS IS DOWN** is also instantiated by the linguistic expression *His heart was heavy* in the target texts. Based on the above examples, it can be concluded that both translators in the case of the translation of the conceptual metaphor draw from different source domains of sadness with different linguistic realizations.

## CONCLUSION

This paper has focused on the translation of the metaphorical expression of sadness based on the cognitive approach. It can be seen that the translation of metaphorical expressions of sadness from the Persian into English is not an easy or straightforward task. As Good and Good (1988) observed, “sadness and grief” pose special problems of understanding for the psychological anthropologist or for the student of Iranian society and culture. They have dramatically different meanings and forms of expression in Iranian culture than in our own. A rich vocabulary of Persian terms of grief and sadness translate uneasily into English language and American culture.” The study shows that translating expressions of sadness largely depends on the cognitive domain of the source language they come from. It is also seen that metaphorical expressions of sadness are not interpreted in Persian and English in the same way. It is necessary for a translator to go through different processes of cognitive mapping in the target language. Translators must

pay attention to the diversity of cultural conceptualization in their act of translation. Translating metaphorical expressions at both the linguistic level and the conceptual level in a meaningful sense requires understanding the cultural contexts of both languages, and simultaneously, the patterns in which the given culture conceptualize experiences. Furthermore, the analysis of metaphorical expressions of sadness in the source text showed that the metaphor is quite pervasive in expressions of emotional concepts, and it plays an essential role in our understanding and speaking. In short, “metaphor is not merely a linguistic mode of expressions”, rather, “it is a pervasive mode of understanding by which we project patterns from one domain of experience in order to structure another domain of a different kind” (Lakoff & Johnson, 1980). The various patterns of translation identified in this preliminary investigation are summarized as follows:

Similar metaphorical concept with different metaphorical expression; The analysis of the data also showed that there are some similar metaphors in the target text while they have different linguistic forms. These similar metaphors are culturally equivalent, i.e., they express the same concepts in different ways. (As shown in example 3. TT2)

Similar metaphorical concept and similar metaphorical expression; Among the data analyzed, there were some metaphorical expressions which have identical linguistic forms and identical metaphorical mapping. These shared metaphors are realized by

semantically equivalent lexical terms and show that there is a large area overlapping between the two cultures. So the translations of these metaphorical expressions are easier than the other one. These identical metaphors often have the same mapping conditions i.e., the conceptual metaphors underlying them are the same in the source language and the target language. (As shown in example 3. TT1)

Different metaphorical concept and different metaphorical expression; The analysis of the data also showed that there were some different metaphors in the source text that the target text may lack because each language has its own different conceptual metaphors. These metaphors often cause some problems for the translator. (As shown in examples 2 and 5. TT1, TT2)

Non-metaphorical translation of the source metaphorical expression. (As shown in examples 1 and 4. TT1 and TT2)

The identification of these patterns of translation are an important outcome of the present study since the patterns are identified by empirical analysis of the source text and the target texts. All in all, first pattern (i) was the most common strategy applied by the two translators in translating Persian metaphors into English. The use of this pattern indicates that between Persian and English there are similar equivalent metaphors but with different linguistic forms. It should be noted that these similar metaphors are culturally equivalent, that is, they express the same concept albeit in a different way. The overall result of this analysis shows that there are some shared

conceptual metaphors of sadness between the source text and the target text. Also, the similarity between the metaphorical mapping conditions and equivalent linguistic expressions show that the translation of these metaphors is relatively easier than the translation of other metaphors. This is compatible with Lakoff's (1993) claim that basic level conceptual metaphors are grounded in bodily experience, and therefore are expected to be found widely across different languages and cultures.

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## **The Effect of Teaching Vocabulary Learning Strategies on Iranian EFL Learners' Receptive and Productive Vocabulary Size**

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### **ABSTRACT**

After some years, vocabulary research has once again found its fundamental position in pedagogical studies as an inseparable component of language instruction. However, many studies conducted have focused more on vocabulary learning strategies rather than explicit instruction of these techniques. The present study, though, seeks to find out whether teaching vocabulary learning strategies is effective in enhancing the knowledge of EFL learners. Two vocabulary tests of Lex30 and Vocabulary Size Test were administered to 51 intermediate Iranian EFL learners. By employing a mixed method approach, five distinct semi-structured interview sessions were held. The results of independent samples *t*-tests revealed the effectiveness of teaching vocabulary learning strategies as the experimental group outperformed the control group. Moreover, the analysis of transcribed data suggested that learners showed positive attitude toward instruction of vocabulary learning strategies. Finally, some pedagogical implications for teaching vocabulary are offered.

*Keywords:* Explicit vocabulary teaching, vocabulary learning strategies, vocabulary size, receptive vocabulary, productive vocabulary

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### **INTRODUCTION**

Although many research studies have explored L2 vocabulary learning through different techniques (Dobao, 2014; Kang, 2015; Nation, 2011; Schmitt, 2010), the arena of language teaching is in dire need of further vocabulary studies. Furthermore,

enhancing vocabulary has always been a heated debate among scholars. Across all facets of second language learning, vocabulary development has been considered a challenging issue (Ender, 2016) that calls for ongoing attention, especially in an EFL context where the research suggests vocabulary learning may be ineffective (Webb & Chang, 2012).

Learning strategies have been studied widely with regards to various variables in different contexts (Sahragard, Khajavi, & Abbasian, 2016). According to Oxford (1990), learning strategies are those steps that are taken by students in order to develop their language learning. It is generally believed that using strategies in language learning are beneficial (Anderson, 2005; Cohen, 1998; Ehrman & Oxford 1990; Macaro, 2001; Oxford, 1990, 2011). When students know how to learn by means of focusing on learning strategies, the gap between learning and instruction is supposed to be fulfilled (Nunan, 1995). Learners, at the same time, can practice learning strategies autonomously when they are encouraged to apply strategies out of the classroom context (Wong & Nunan 2011).

Strategic teaching has been seen to be valuable with regards to language learning outcomes. Language learners' self-regulating strategies and subsequently learner autonomy could be improved by means of instruction, which is based on strategies (Nguyen & Gu 2013). Likewise, Dörnyei (2001) emphasized that teachers were in charge of employment of teaching strategies to enhance and maintain learners'

motivation. As fruitful language learning imposes supplementation of various learning strategies, teachers should establish a flexible agenda to meet individual differences among learners because taking the individual sources of variation into account is supposed to be a principle (Ellis, 2005). Ellis asserted that such instruction required promoting demonstration of language learning by means of empirical and logical approaches to strategies. Accordingly, it is likely that vocabulary instruction could benefit from implementation of learning strategies.

Stating eight considerations in teaching vocabulary, Richards (1976), asserted that "a major feature of second language program should be a component of massive vocabulary expansion". Notably, he mentioned that teaching vocabulary strategies was not for instructing what a word means, nor was it for aiding learners to adopt the definitions that were provided in the dictionary (Ooi & Kim-Seoh 1996). Rather, the teacher's role is to aid learner to conceptualize vocabulary acquisition. Thus, teaching vocabulary learning strategies should be considered a required desideratum for a successful language curriculum. However, a large number of research conducted in this area (Kim, 2013; Laufer & Hulstijn, 2001; Pigada & Schmitt, 2006; Schmitt & Schmitt, 1993; Tseng & Schmitt, 2008) have focused on the role vocabulary learning strategies rather than teaching them explicitly. When the best method of vocabulary learning is unclear (Schmitt, 2008), the best means of instructing new words would be vague. Yet, scrutinizing

the effectiveness of teaching strategies directly in promoting vocabulary knowledge deserves attention.

## LITERATURE REVIEW

### Vocabulary Learning Strategies

Vocabulary has been widely studied in the realm of language learning. Different vocabulary studies have focused on different issues such as incidental and intentional aspects of vocabulary learning (Schmitt, 2008; Teng, 2016), dimensions of receptive and productive vocabulary knowledge (Harsch & Hartig, 2016; Lee & Muncie, 2006; Webb, 2008), and different vocabulary learning strategies (Elgort & Warren, 2014; Zhang & Li, 2011). In addition, in some other studies, the interest was directed toward measuring vocabulary size of language learners (Nation, 2006; Schmitt & Schmitt, 2014; Webb & Rodgers, 2009a, 2009b) to provide a comprehensive picture of vocabulary development in a second or foreign language. It is believed that measuring vocabulary size is helpful in diagnosing learners' knowledge of required words for particular tasks (Karami, 2012), charting their growth regarding vocabulary acquisition (Beglar, 2010), and designing educational programs for language learners (Nguyen & Nation, 2011).

In 1990s, a number of related studies on vocabulary learning strategies were conducted. Sanaoui (1995) categorized vocabulary learning approaches used by adult learners as structured and unstructured. The learners who approached vocabulary learning structurally were self-initiated,

acted independently to apply strategies, and had a better performance in recall. Although the focus of this study was on vocabulary learning strategies, there were some points referring to the importance of "instructors' guidance in developing effective approaches to vocabulary study".

Studying vocabulary learning strategies of 15 foreign (Italian) language students in Australia, Lawson and Hogben (1996) found that repetition in vocabulary learning was frequently practiced while learners were unwilling to use more complex strategies in learning vocabulary. Nevertheless, they declared that these elaborative procedures were more likely to be useful in comparison with repetition. One of the limitations of their study was that all the participants were female. In this study, data collection was through think-aloud procedure, which could not result in inclusive depiction of the use of all strategies. Moreover, it appears that the focus of authors was mainly on the role of context, not strategies.

In 1996, Gu and Johnson had done a research on vocabulary learning strategies and learning outcomes of adult Chinese EFL learners. Their study revealed that successful EFL learners, who applied various vocabulary learning strategies (e.g., metacognitive, guessing, dictionary use, note-taking, memory, activation), could be potentially proficient language learners. As "a large part of EFL vocabulary learning necessarily involves skill learning" (Gu & Johnson 1996), teaching vocabulary learning strategies would involve showing how to practice learning skills. Then,

teaching vocabulary learning strategies is operationally defined as intended and principled instruction of strategies to develop language learners' vocabulary knowledge by enhancing the receptive and productive vocabulary size of learners.

### **Developing Vocabulary through Strategies**

Recently, some studies have addressed vocabulary learning strategies (Ender, 2016; Fan, 2003; Kim, 2013; Wei, 2015; Zhang & Li, 2011). For example, Fan (2003) reported the categorization of L2 vocabulary strategies used by Hong Kong learners. Although it was not illuminated how EFL learners' repertoire of certain strategies of vocabulary learning was evaluated, this study implied that familiarizing students with the significance of strategies was of importance. Regarding strategies evaluation, Tseng, Dörnyei, and Schmitt (2006) asserted that measuring strategy use through questionnaires was a challenging task since vocabulary learning strategies engage interrelated mental processes.

In a recent study, Kim (2013) closely scrutinized the effect of affixation knowledge as a strategy on vocabulary learning of 54 students of a private English school in Korea. The control group learnt vocabulary through memorization and the experimental group learnt vocabulary based on prefixes and suffixes. The results proved the effectiveness of affixation knowledge in facilitating vocabulary learning in comparison with simply memorizing new

words. This research was informative but like many other studies (Pigada & Schmitt, 2006; Schmitt & Schmitt, 1993) it emphasized on learning strategies rather than teaching these strategies.

Discussing incidental vocabulary acquisition, Ender (2016) argued that when learners established top-down or guessing procedures, they focused on meaning, not on forms of words. Nation (2001) asserted that guessing the meaning of a word calls for learner's different exposures in various contexts as each context presented a limited range of word meanings. Therefore, by considering the complementary role of guessing from context in learning word meaning, Schmitt and McCarthy (1997) stated that establishment of an eclectic approach was required for teaching vocabulary.

According to Webb and Chang (2012), learners should be trained on methods of dealing with unknown vocabulary items. It could be possibly fulfilled through teaching vocabulary learning strategies. This is crucial for students' academic success that teachers find and instruct effective and efficient strategies to help learners enhance their vocabulary knowledge extensively (Ebner & Ehri, 2016). They should decide what strategies are required to predict students' success in vocabulary mastery. It is believed that the strategies that concentrate on learning the forms and word associations are better predictors of vocabulary breadth and depth (Zhang & Lu, 2015) and subsequently vocabulary depth seems to be a significant

predictor of reading comprehension rather than learners' vocabulary size (Zhang & Yang, 2016).

In effect, the role of teachers in instructing vocabulary learning strategies deserves to be investigated. Considering the variety in learners' strategy use, Nation (2001) argued that it was required for language teachers to afford a planned and strategic instruction. Even, in the case of online vocabulary acquisition, through internet and online courses, learning should be strategically complemented with the presence of a teacher. Examining students' online vocabulary learning through structured think-to-yourself technique, Ebner and Ehri (2016) asserted that teachers' role was to ensure students' effective online learning of new words. Furthermore, teachers' provision of required metacognitive strategies is necessary for learners' productive online learning (Ebner & Ehri, 2016).

In short, there is a sufficiently established knowledge foundation about learning strategies to enhance vocabulary. Nevertheless, rare studies have focused on strategy training (see Maeng & Lee, 2015 for practice of motivational strategies in teaching vocabulary). Thus, the role of instructing strategies in the area of vocabulary learning needs to be investigated. Nation (2013) believed that the most important responsibility of a teacher after planning was training learners use of effective strategies because regular inclusion of strategy instruction in a course

makes learners skillfully independent. Regarding the slow process of incidental vocabulary acquisition in EFL contexts, explicit instructional practices such as multimedia glossing have been prioritized by researchers to develop vocabulary teaching and learning (Khezrlou & Ellis, 2017). Therefore, the concurrent study aims to examine the effect of explicit instruction of vocabulary learning strategies on Iranian EFL learners' receptive and productive vocabulary size.

### **Research Questions**

The aim of this study is to probe whether teachers' instruction on vocabulary learning strategies has an effect on both receptive and productive vocabulary size of Iranian EFL learners. Thus, the present paper seeks to address the following questions:

1. To what extent does teaching vocabulary learning strategies have an effect on Iranian EFL learners' receptive vocabulary size?
2. To what extent does teaching vocabulary learning strategies have an effect on Iranian EFL learners' productive vocabulary size?
3. What are learners' attitudes toward explicit instruction of vocabulary learning strategies?

## **METHOD**

### **Participants**

Two vocabulary tests were administered to 51 English language and literature students, conveniently selected from two similar

groups of the same educational grade from Hakim Sabzevari University, Iran. All the participants (20 males and 31 females) were first-year students of the Reading Comprehension Course with intermediate level of language proficiency. Notably, their age ranged from 18 to 21 years. In addition, all of them had taken English courses at secondary and high school and at the time of conducting the current study, they had at least 6 years of experience in learning English as a foreign language. Furthermore, five of these students volunteered to participate in semi-structured interviews that were conducted by the researchers with the aim of determining how learners feel about explicit teaching of vocabulary learning strategies.

### Instruments

**The Bilingual Version of Vocabulary Size Test.** The Vocabulary Size Test (VST), developed by Nation and Beglar (2007), measures total written receptive vocabulary size of ESL or EFL learners. A growing body of research supports the use of both monolingual and bilingual versions of VST and confirms their reliability (Amirian, Salari, Heshmatifar, & Rahimi, 2015; Beglar, 2010; Elgort, 2013; Karami, 2012; Nguyen & Nation, 2011). Beglar (2010) reported that this test examined one construct regarding vocabulary knowledge (i.e., written receptive vocabulary size) and enjoyed high degree of measurement precision, data reliability, and test validity.

Vocabulary Size Test also has bilingual versions. According to Nguyen and Nation (2011), the behavior of monolingual and

bilingual versions of this test are similar in that they distinguish learners with various proficiency levels. Karami (2012) also demonstrated the bilingual version enjoyed acceptable level of reliability. Similarly, Amirian et al. (2015) concluded that the Persian bilingual version of VST enjoyed a high level of reliability, shaped a meaningful difficulty range, and measured one underlying factor. Thus, in this study, the Persian version is preferred. Using the bilingual version has some advantages over the monolingual version. To mention one, learners feel more comfortable with this version (Karami, 2012). Second, low-proficient learners could also participate in VST when L1 definitions are provided (Elgort, 2013).

**Lex30.** Lex30, as a test of productive vocabulary, was first introduced by Meara and Fitzpatrick (2000). It elicits words that are supposed to be representative of learners' productive vocabulary breadth (Fitzpatrick, 2000). Its items that are 30 stimulus words meet three criteria: stimulus words are highly frequent, no strong primary word is intended to be elicited, and each word does not trigger a common response. Lex30 has a major advantage over traditional ways of assessing productive vocabulary knowledge, in that the elicited responses are "lexically very dense" because they are mostly content words (Fitzpatrick & Meara, 2004).

Studying 46 learners of EFL, Meara and Fitzpatrick (2000) found Lex30 could be practical as it took less amount of time to administer, was easy to administer,

benefited from lenient scoring method, and had acceptable reliability level to ensure its potential for estimating productive vocabulary size. Walters (2012) figured out that Lex30 was a reliable and valid measure of productive vocabulary knowledge as it showed good concurrent validity with two other tests of productive vocabulary knowledge. Also, Fitzpatrick and Meara's (2004) study established that Lex30 benefited from a high degree of test-retest reliability. In addition, Fitzpatrick and Clenton (2010) presented a strong argument for the validity of Lex30. In the present study, a paper-pencil version of this test was carried out.

**Semi-structured Interview.** Semi-structured interview is conducted when an interviewer asks general questions and the interviewee is not limited to these prescribed questions (Dowsett, 1986 as cited in Nunan & Bailey 2009). Dowsett also noted that semi-structured interview provided the researcher with rich data and made social relationships accessible for the researcher in a deep way. According to Nunan and Bailey (2009), regarding the flexible nature of semi-structured interview, it is favored by many researchers.

### **Procedures**

First, participants were assigned conveniently to two groups of control and experimental. Then, to ensure the homogeneity of the sample and their equal level of English proficiency, Oxford Placement Test was administered to all

learners in a separate session before pre-test phase. Then, collected data were analyzed by SPSS version 23.

At pre-test phase, in two separate classroom sessions, Lex30 and bilingual VST were administered to both control and experimental groups to measure their receptive and productive vocabulary size. In case of the former, before running the examination, all the required instructions were provided. Then, learners were offered as much time as they needed and no time limit was set as it had been suggested by the developers of Lex30 (Meara & Fitzpatrick, 2000). However, it took about 20 minutes for participants to write the words they recalled. The collected papers were then imported to online version of Lex30 available at <http://www.lognostics.co.uk/tools/Lex30/index.htm>. The rationale behind doing so was ease and precision of scoring. In case of bilingual VST, learners were provided with test paper and were asked to answer the items whose meaning they are sure about. In fact, learners were suggested not to guess the meaning of any word as it will cause error in evaluation. Schmitt (2014) noted that generally all receptive measures of vocabulary applied multiple choice format that was supposed to be a source of variation because the chance of benefiting from guessing increased.

After test administration at pre-test phase, participants' performance in bilingual VST was analyzed to determine which words learners have no knowledge about. Therefore, the experimental group was taught selected words through instruction vocabulary learning strategies including

metacognitive regulation, guessing, dictionary use, note taking, memory strategies, and activation strategies (Gu & Johnson, 1996). First, one strategy was elaborated to learners and then one selected word was instructed as an example to show them how to apply a strategy and to raise their awareness. On the other hand, the control group did not receive any instruction in strategies and learned selected words traditionally. Ten weeks later when the students had passed 10 instructive sessions, the post-tests were conducted. The same procedures were followed at post-test phase for Lex30 and bilingual VST administration.

Afterwards, to review learners' feedback on particular approaches toward teaching vocabulary learning strategies, semi-structured interviews were conducted. Measures such as trying to make the participants feel comfortable, attending to the interviewees' characteristics, asking the key questions in the middle, and keeping an open-ended discussion (Mackey & Gass, 2005) were taken to obtain reliable data. The

recorded interviews were then transcribed and imported to MAXQDA version 12 to be qualitatively analyzed.

## RESULTS

The present study was designed to determine the effect of teaching vocabulary learning strategies on vocabulary knowledge of Iranian EFL learners. In this section, the results of the study are presented and discussed. Moreover, schematic representation of the analyzed data is provided.

To understand whether the sample of the study is homogenous or not, Oxford Placement Test was administered. With regards to descriptive statistics, the mean score of experimental group was 21.84 ( $SD = 4.90$ ) and the mean score of control group turned out to be 21.44 ( $SD = 4.29$ ). Then, independent sample *t*-test using SPSS version 23 was run to check the homogeneity of the sample. The results are shown in Table 1.

Table 1

*Independent samples t-test for oxford placement test*

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		<i>F</i>	Sig.	<i>T</i>	df	Sig. (two-tailed)
Score	Equal variances assumed	0.09	0.76	0.31	49.00	0.75
	Equal variances not assumed			0.31	48.58	0.75

As shown in Table 1, with regards to attained *p* value, there is no significant difference between two groups in terms of their performance in the Oxford Placement Test;  $T(49) = 0.31, p = 0.76 > .05$ . This confirms the homogeneity of the two groups.

To ensure normality of the data achieved from Oxford Placement test, the Shapiro-Wilk test and the Kolmogorov-Smirnov test were used. The results are offered in Table 2.

Table 2  
*Tests of normality for Oxford Placement Test*

score	Groups	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
	Experimental	0.127	26	0.200*	0.970	26.00	0.624
	Control	0.111	25	0.200*	0.965	25.00	0.516

\*This is a lower bound of the true significance.

As shown in Table 2, the obtained *p* value was  $0.624 > 0.05$ , which ensures normality of the data. Thus, these findings acknowledged the normal distribution of the collected data.

vocabulary size, and bilingual VST, as the measurement of receptive vocabulary size of learners were run. The schematic representation of the analyzed data are given in Table 3.

In addition, in pre-test phase, both Lex30, as the measurement of productive

Table 3  
*Independent samples t-test for Lex30 in pre-test phase*

Score		Levene's Test for Equality of Variances		<i>t</i> -test for Equality of Means		
		F	Sig.	T	df	Sig. (two-tailed)
Score	Equal variances assumed	.063	0.80	0.01	49.00	0.99
	Equal variances not assumed			0.01	48.49	0.99

At the pre-test phase, no notable difference was seen between experimental group ( $M = 38.92, SD = 12.00$ ) and control group ( $M = 38.88, SD = 12.77$ ) in terms of their productive vocabulary size. Then, from

the data in Table 3, it is apparent that *p* value is larger than 0.05 ( $T(49) = 0.01, p > 0.05$ ) and the two groups are close to each other in terms of their productive vocabulary size.

Table 4

*Independent samples t-test for bilingual VST in pre-test phase*

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (two-tailed)
Score	Equal variances assumed	1.59	0.21	-0.19	49.00	0.84
	Equal variances not assumed			-0.19	41.08	0.84

Regarding descriptive statistics of bilingual VST at pre-test phase, mean score for experimental group was 21.34 ( $SD=5.80$ ) and the mean score for the control group was 21.76 ( $SD = 8.89$ ). As shown, in Table 4, both groups are close in terms of the receptive vocabulary size as the  $p$  value is significantly higher than Cronbach alpha 0.05 ( $T(49) = -0.19, p = 0.21$ ).

Taken all together, these findings suggest homogeneity of control and experimental groups.

To examine the effectiveness of instruction of vocabulary learning strategies on learners' receptive and productive vocabulary size, independent sample  $t$ -tests were run for comparing the mean scores of groups.

Table 5

*Independent samples t-test for bilingual VST in post-test phase*

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (two-tailed)
Score	Equal variances assumed	0.000	0.992	-2.20	49.00	0.032
	Equal variances not assumed			-2.20	48.93	0.032

Table 5 depicts the results of independent samples  $t$ -test for VST scores. According to the obtained  $p$  value, it is obvious that the experimental group that has been taught vocabulary learning strategies outperformed the control group;  $T(49) = -2.20, p = 0.032 < 0.05$ . In other words, enjoying from direct instruction of vocabulary learning strategies, they showed higher receptive

vocabulary size. Because, the attained  $p$  value is significant ( $=0.032 < 0.05$ ), it could be concluded that explicit teaching vocabulary learning strategies is very effective in extending receptive vocabulary size of Iranian EFL learners.

Based on descriptive statistics, after treatment session, there was a huge difference between means of experimental

group ( $M = 48.84$ ,  $SD = 14.40$ ) and control group ( $M = 38.26$ ,  $SD = 11.80$ ) in terms of their productive vocabulary size.

Table 6

*Independent samples t-test for Lex30 in post-test phase*

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	df	Sig. (two-tailed)
Score	Equal variances assumed	1.23	0.27	-2.87	49.00	0.006
	Equal variances not assumed			-2.86	46.41	0.006

An independent samples *t*-test shows that experimental group scores are significantly higher than control group;  $T(49) = -2.87$ ,  $p = 0.006 < 0.05$ . Table 6 indicates *p* value of 0.006 that shows a significant difference between the two groups in terms of their productive vocabulary size. This suggests that teaching vocabulary learning strategies have been meaningfully beneficial to enhance productive vocabulary size of Iranian EFL learners.

In the second phase of the study, from the analysis of transcribed interviews, a number of issues were identified. Analysis of the qualitative data revealed that the participants on the whole demonstrated a positive attitude toward direct teaching of strategies and its practicality in enhancing their vocabulary knowledge. In other words, participants, almost all, recognized this kind of instruction to be interestingly helpful. For instance, Karim said:

*“As this type of instruction is interesting to me, I am motivated now to apply it in all my vocabulary learning.”*

In the same line, Michael (a pseudonym) remarked:

*“I would prefer this style rather traditional methods of introducing lists of vocabulary items from books and then taking an exam.”*

The positive view was echoed by another informant who talked about the beneficial role of direct teaching of vocabulary learning strategies in recalling words as she said:

*“Naturally, I cannot remind the words that I have learnt before but interestingly I remember the taught words through strategies because they are assigned to my background.”*

Another major theme which was recognized was the key role of the teacher in this kind of instruction. One informant reported the fundamental role of the teacher in this type of instruction; teacher as a modeler. Asked about her feedback, Sarah (a pseudonym) expressed herself this way:

*“The strategies were vague to me till the teacher, himself, acted as a model. From*

*then on, I recognized how to apply them and learn confidently.”*

Similarly, Beth (a pseudonym) mentioned:

*“In teaching strategies, teacher is the key. I mean he can make the students motivated to learn these techniques.”*

In summary, for the informants in this study, explicit teaching of vocabulary learning strategies and teacher modeling were beneficial in boosting their lexical knowledge and making them motivated to learn new vocabulary items in an interesting way. Taken together, the results of the study proved the effectiveness of teaching vocabulary learning strategies in enlarging the vocabulary size of Iranian EFL learners in terms of both receptive and productive vocabulary. The findings also implied that successful explicit teaching of vocabulary, considering constraints such as time limit and funds, calls for strategic pedagogical moves.

## **DISCUSSION**

The first research question of this study concerned whether teaching vocabulary learning strategies has an effect on the receptive vocabulary size of Iranian EFL learners. The results suggest that explicit instruction of these techniques would enhance learners' receptive vocabulary size significantly. Aligned with this finding, Nation (2011) stated the usefulness of strategies such as guessing, mnemonic devices, using dictionary and word cards, and finally keyword and word part techniques in developing vocabulary

learning. Noting the devotion of class time for the mentioned strategies, he stressed for acquiring independency in using these strategies as the purpose of their instruction. Similarly, Webb and Chang (2012) asserted the benefits of including strategy training in vocabulary programs as they made learners prepared and capable of dealing with new words effectively.

However, Nation (2011) highlighted the effectiveness of using word cards in comparison with teaching new words and vocabulary exercises and argued that it could be more convenient “to reduce the time given to vocabulary teaching and doing vocabulary

exercises and use this time for extensive reading, fluency development, and meaning-focused input and output activities”. This argument does not seem to be in line with the findings of the current study which note the beneficial role of direct instruction of strategies through which vocabulary size will be boosted. Notably, according to P. Nation, vocabulary size relies on several other factors such as time spent on learning, motivational level, and opportunities for input (personal communication, March 12, 2016).

Regarding the second research question, the findings reveal the effectiveness of teaching vocabulary learning strategies in boosting productive vocabulary size. According to Ur (2012), “most researchers agree that we need to include some deliberate, focused vocabulary teaching procedures as a supplement to – though not a substitute for – incidental acquisition through extensive

reading and listening”. Although the essence of lexical knowledge is complicated (Schmitt, 2014) and the complex concept of productive vocabulary engages many subdivisions, it is acknowledged that responding to items of Lex30 does not indicate a maximum level of productive lexicon as it is supposed to measure vocabulary recall rather than word use (Fitzpatrick & Meara, 2004). T. Fitzpatrick believed that recall was one component of productive vocabulary knowledge that was supposed to be measured by Lex30 (personal communication, September 19, 2016). Moreover, learners’ inability to use vocabulary items does not necessarily imply their lack of knowledge of those words (Dobao, 2014).

Finally, qualitative data analysis revealed two major themes. First, practice of strategies enhances the learners’ level of motivation. Tanaka’s (2017) study revealed that enhancing the level of enjoyment and consequently motivation in learners was a key factor in developing their vocabulary size. In another study, Otwinowska-Kasztelanic (2009) found out that learners might know many cognates but they would benefit from their knowledge only when their awareness was raised through training. Then, learners possibly change their attitudes as well as their use of vocabulary learning strategies. From this remark, it could be concluded that few instructors are likely to use these strategies practically in their classroom teaching. This finding highlights Nation’s (2011) position that application of strategies is beneficial

for learners “but very few teachers seem prepared to make such strategy training a regular part of their vocabulary program”.

This finding was in line with what Sanaoui (1995) found out; learners who are equipped with vocabulary learning strategies are more successful in vocabulary recall in comparison with those learners who are not provided with these strategies. Furthermore, learners’ establishment of frequent strategies is positively correlated with their level of English and self-efficacy (Anam & Stracke, 2016). Exploring two broad viewpoints on autonomous learners, Oxford (2015) asserted that self-regulated learners took learning strategies into account. In other words, learners’ employment of intentional actions with the aim of learning (Oxford, 2011) and management of language learning strategies would result in self-regulation (Oxford, 2015). When vocabulary learning follows a self-regulated process, it leads to self-efficacy as well. Concurrently, self-efficacy that is a characteristic of autonomous learner leads to vocabulary enhancement (Mizumoto, 2013).

Second, the teacher plays a chief role in motivating learners and concurrently teaching vocabulary through strategies. Dörnyei (2001) asserted the significant role of teachers in motivating students’ language learning, especially with an outlook toward learners’ long-term developmental objectives. In support of Laufer’s (2003) claim that teachers would influence vocabulary learning mostly, Webb and Chang (2012) noted careful planning to be a chief role of teachers in vocabulary

courses. However, according to Sugita and Takeuchi (2010), teachers' practices are not the only source of motivational strategies. Moreover, these motivational techniques vary in different EFL contexts as they depend on cultures (Wong, 2014).

## CONCLUSION AND IMPLICATION

Many studies on vocabulary have considered the role of strategies in enhancing learners' vocabulary knowledge. At the same time, the focus of the majority of the vocabulary studies is on output of expanding vocabulary span instead of the process of learning strategies to achieve this purpose. Then, the present study aimed to find out to what extent teaching vocabulary learning strategies impacts vocabulary size of learners.

In summary, the results of the current study showed that vocabulary teaching strategies are significantly effective in enlarging both productive and receptive vocabulary size of EFL learners as the experimental group, who were provided with instruction of vocabulary learning strategies, outperformed the control group, who had not received any specific strategy instruction. This finding implied the necessity to include strategic teaching of vocabulary in curriculum, educational programs, and language courses.

Furthermore, on the qualitative phase of data analysis, participants revealed their positive feedback toward instruction of vocabulary learning strategies. They mentioned functions of motivation and mental preparedness as major benefits of this

kind of strategic vocabulary learning. This implies that instructors should first notice the role of raising awareness and then teach new items through elucidating learning strategies. In other words, creating a motivating atmosphere needs to be involved in the process of explicit vocabulary instruction with the aim of preparing learners.

In addition, there could be mismatch between teachers' theoretical knowledge and practices in the pedagogical context due to various factors such as populated classes, shortage of time, and reluctant students. It could possibly happen when instructors themselves are not familiar with the desirability, applicability, and practicality of strategies in their classes. It implies that language learners' lack of knowledge about what these strategies are and how they could be applied would be a problematic issue, which impacts their vocabulary learning.

As vocabulary knowledge is multifaceted, keeping the balance between its receptive and productive aspects needs attention. In the case of an EFL context, it seems that receptive vocabulary knowledge is emphasized at the cost of productive dimension of vocabulary. Then, future studies may explore how to keep balance between receptive and productive mastery of vocabulary knowledge.

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## **The Role of Intellectual Capital on Public Universities Performance in Indonesia**

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### **ABSTRACT**

Intellectual capital is anticipated as the key factors that could contribute to universities performance and create value for globally competitive advantage. Accordingly, this study investigates the role of intellectual capital and its elements: namely human capital, structural capital and relational capital, on the public universities performance in Indonesia. A total of 177 respondents representing from 8 top public universities in Indonesia were involved in the study. The Partial Least Square (PLS) was used to test the hypotheses. The result found that there was a significant relationship of Intellectual Capital (IC) and its elements on universities performance. Conclusively, it is wise to recommend to the university to invest in intellectual capital consisting of human capital, structural capital and relational capital. Also, these elements should be used as a new model for measurement of the university or higher education institution performance so that it provides added value to strengthen their competitiveness ability.

*Keywords:* Human capital, intellectual capital, relational capital, structural capital, universities performance

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### **INTRODUCTION**

Higher educations in Indonesia have grown rapidly since last decades. As reported by the Ministry of Research, Technology and Higher Education, Republic of Indonesia (2015), the number of public and private higher education institutions in Indonesia increased about 18% and 5.39%, respectively from the year 2005 to 2011. The increment of higher education institutions in Indonesia

has created a new paradigm that leads the university's orientation, i.e. not only have to be able to compete at the national level, but at the global level as well. Besides, the Indonesian higher education sector is also facing a number of changes that directly affect the conceptualisation and function of universities. The most important changes are reformation and modernisation of their education systems in relation to presenting new information that is necessary for stakeholders such as governments, funding agencies, researchers, students, eventual partners. Hence, the Indonesian government has determined the rank of a university in the list of the world ranking university as one of the tools to measure the achievement of the performance quality of universities in the country and to sustain their competitiveness.

The existence of intellectual capital (IC) is believed to play the important role to enhance the performances of universities. Consequently, intellectual capital should be given a great attention by the universities performance in achieving their goals. The universities in European countries such as Austria, UK, Spain and Hungary have been well-organised in reporting intellectual capital since few decades as revealed in the literatures (Benzhani, 2010; Cañibano & Sánchez, 2009; Córcoles, Peñalver, & Ponce, 2011; Fazlagic, 2005; Leitner, 2002; Sánchez & Elena, 2006; Ramírez & Gordillo, 2014; Veltri, Mastroleo & Schaffhauser-Linzatti, 2014).

Although many studies have been conducted concerning intellectual capital and organisation performances, however,

specific studies focusing on the relationships between the variables of intellectual capital and university performance in the research literature is rare. Currently, only studies conducted by Lu (2012) in Taiwanese universities and Meihami and Karimi (2014) in Iraqi universities were revealed in the research literature. Similarly, in the case of Indonesia, the research on intellectual capital in universities is very scarce and is a piecemeal study. Puspitahati, Ulum, and Prasetyo (2011) studied on the intellectual capital reports of the university's official website that won the QS-Star framework, which was actually built for the items IC of European universities (Leitner, 2002). Also, another study reported by Ulum (2012), who utilised the items of intellectual capital based on the items published by Leitner (2002) and combined with the guidelines accreditation programme by the Indonesian Universities Accreditation Institution (BAN-PT). Sadalia and Lubis (2015) also examined discriminant analysis of intellectual model (organisation culture and corporate governance) of a state university in Medan city, Indonesia; nonetheless, the sample was too limited to make a generalisation for Indonesian conditions.

Conclusively, the previous studies in Indonesia are limited to a descriptive research, and have no framework and conceptualisation model developed comprehensively to examine the relationship between intellectual capital and universities performances. Thus, this study was made to examine the empirical effects of intellectual capital e.g. human capital, structural capital,

and relational capital on the performance of public universities in Indonesia. The study would hopefully prove empirically a model to measure the performance of public universities in Indonesia and its relation with intellectual capital.

### Literature Review

Performance is an important element in the university, which can be used as a measurement of the university achievement. Measuring university performance is made on the basis of academic excellence achieved. In line with the paradigm shift of higher education in the globalisation era, the university has to change the orientation from a “national, analogue, industrial economy” to one that is “global, digital and information-based” as stated by Hughes (2013). Facing these challenges, Indonesian universities should enhance their performances both in academics and management. Performances measurement has increasingly pushed a call for accountability in higher education. However, there are still few frameworks of universities performances measurements have been developed. Many performances measurement frameworks are originated from private sectors for purposely getting profits. An attempt has been made by Wang (2010), who claimed that the universities performance could be measured from education and research aspects, which are in line with the university roles and functions.

Intellectual capital is the most important strategic and significant assets towards organisational performance in various field and perspectives (Abadulai, Kwon, &

Moon, 2012; Gruian, 2011; Hashim, Osman, & Alhabshi, 2015; Khalique, Shaari, Isa, & Samad, 2013; Vishnu & Gupta, 2014; Wang, Wang, & Liang, 2014). The university is an organisation, thus it provides the avenue for IC investigation since IC is so important to universities (Jones, Meadow, & Sicilia, 2009). Universities yield knowledge, also within scientific technical research such as the results of investigation, publication, or across teaching e.g. students trained and productive relationships with the stakeholders (Ramírez & Gordillo, 2014). Universities organisations are, therefore, the best framework for the presentation of ideas associated with the intellectual capital theory (Paloma, Sánchez, & Elena, 2006). Public universities confronted with the increased demand of government as owners and citizens as stakeholders for transparency regarding the use of these funds expose about the social and economic outcomes of universities, and they join forces with other research institutions, private or public organisations, or even participate in international research networks (Leitner, 2005). The academic community, as well as the universal community, assumes that the intellectual capital of a university must obtain the highest levels of quality and does not require any kind of intervention. However, the reality falsifies this statement and today’s universities are in slow progressing to innovate (Fazlagic, 2005). Public universities do not have owner structure like private organisations, and consequently, they do not need to produce the kind of annual reports required by

commercial law, but they have to implement financial accounting systems (Leitner, 2005).

There is a lack of literature that supports the impact of intellectual capital on performance in the education sector. However, studies reported by Lu (2012), and Meihami and Karami (2014) showed that the intellectual capitals had a significant impact on universities performance. From a theoretical perspective, the resource based view theory assists a manager knowing that the resources of the organisation can be noticed as organisations' most essential asset, and at the same time he is also valuing those assets to increase organisation's performance. The above arguments support the statement that intellectual capital plays an important role to increase the organisational performances of universities.

According to Bontis (1999) and Kong (2007), human capital, structural capital, and relational capital are the component of the IC framework for the non-profit organisation. In addition, other scholars in the non-profit management area have agreed that IC includes three primary interrelated non-financial elements such as Stewart (1997), Roos, Roos, Dragonetti, and Edvinsson (1997), Van Buren (1999), Bontis, (2001), Fletcher, Guthrie, Steane, Roos, and Pike (2003), and Grasenick and Low (2004). Intellectual capital of universities is represented as being formed by three basic and closely interrelated components e.g. human capital, structural capital and relational capital. The elements of a university's intellectual capital have

been classified in varying ways, although certainly it is the tripartite classification that is most widely accepted in specialised literature (Benzhani, 2010; Córcoles et al., 2011; Leitner, 2005; Cañibano & Sánchez, 2009).

Human capital is defined as human capital associates to employee's knowledge, competencies, skill, capability and innovation; and various resource elements attitude and intellectual agility, tacit knowledge, talents of people, (Khalique, Shaari, Isa, & Agel, 2011). Many studies have shown the significant relationship between human capital and organisation performance (Abadulai et al., 2012; Ajisafe, Orifa, & Balagun, 2015; Jamal & Saif, 2011; Stiles & Kolvisaechan, 2003; Wang & Chang, 2005) as employees provide the quality of service while implementing internal processes, their capability would affect process efficiency, quality, and customers' satisfaction. Córcoles et al. (2011) indicated that the main purpose of the university was to produce and diffuse knowledge, with the university's most significant investment being academic research and human resources. The study (Lu, 2012; Amin, Ismail, Rasid, & Selamani, 2014) found that human resource such as recruitment, training, performance appraisal, career planning, employee participation, job definition, and compensation had a significant relationship with university performance.

The second element of IC is structural capital, which is meaningful to the system and structure of an organisation. Structural

capital is the valuable strategic assets of organisational which consists of hardware, software, databases, organisational structure, patents, trademarks, information systems, copyrights, company images, system policies and procedures, routines and others that employees use to support their business activities and processes, (Khalique et al., 2011; Wang et al., 2014). Generally, the structural capital of organisations comprises of infrastructure, system policies, and procedures, (Khalique, et al., 2011). According to Pablos (2004), Sharabati, Jawad, and Bontis, (2010), and Stevens (2011), structural capital mainly provides the environment that supports individuals to invest their human capital in creating the innovation and development, technology, quality management, creativity and organisational and leverage its knowledge to enhance organisational performance.

Structural capital cannot live without human capital. These assets must work in hand with structural capital. The mere creation of knowledge by individuals is useless without a structure to determine how that knowledge leads to better products. The consideration that characterises public university's operation direction, university's funds and the operating expenditure of the schools in teaching, research, education, and training, guidance and assistance. These factors serve to strengthen internal organisational and energise research and teaching (Lu, 2012). The above arguments indicate that structural capital performs an essential role in confirming that education institutions have the academic excellence to offer future leaders.

The last element of IC is relational capital, which represents an organisation's relations with its external stakeholders and the perceptions that they hold about the organisation, as well as the exchange of knowledge between the organisation and its external stakeholders (Cegarra-Navarro & Sánchez-Polo, 2010; Lopes-Costa & Munoz-Canavate, 2015; Wang et al., 2014). Similarly, relational capital is defined as an invisible asset based on developing, maintaining and nurturing high-quality relationships with any organisations, individuals or groups that influence business performance. Within this new economic model, it is clear that universities have begun to explore how to profit from the knowledge that they possess as educational institutions (Lu, 2012). Except for revenue enrolled students, university management has largely adopted efforts to leverage their knowledge into additional revenue through providing services for external schools such as training and studying. It is the quality of relational capital that translates into revenue for an organisation (Thursby & Kemp, 2002). If a university has a strong relationship with numerous customers, it is likely that the university will continue to be profitable. Based the above discussion, the study proposes the following hypothesis:

H1: There is a relationship between intellectual capital and the public universities performance in Indonesia.

H1a: There is a relationship between human capital and the public universities performance in Indonesia.

H1b: There is a relationship between structural capital and the public universities performance in Indonesia.

H1c: There is a relationship between relational capital and the public universities performance in Indonesia.

## METHOD

A total of 177 respondents who were leaders of the universities and their faculties participated in this study. The respondents were taken from 8 (eight) Indonesian public universities, which were listed under the QS World University Rankings in the periods of the year 2014 and 2015. A questionnaires survey technique through online survey was used to obtain the data from the respondents from the listed universities. The respondents involved in the study were Rector, Vice Rector, Dean, Vice Dean and Head and Secretary of Departments and lecturers. They were purposely chosen since they knew more about their institutions. From the demography data, a total of 122 respondents (68.9%), who participated in the study were male, while the rest were female. Despite the majority of respondents were male, the responds are still representable for this study because this study does not aim to differentiate between the respondents of genders. All the questionnaires were sent to all email addresses available in the sample universities. The compositions of the gender of the respondents were just known after they convey responses in questionnaires delivered through the online survey. The majority of the respondents aged between

40-49 years old (65 respondents or 36.7%) of the total number of respondents. Meanwhile, about 61.5% or 109 respondents were Ph.D. degree holders. Based the position held, 110 or 62.1% of the total respondents worked as lecturers, forming the biggest percentage or the highest number, followed by the heads of programmes (27 respondents or 15.3%) of the total number of respondents. There were 68 respondents (38.4%) with more than 8 years working experiences as either the university leaders or lecturers in universities. They are the respondents with a doctorate degree and are able to understand and answer all the research instruments as expected in the study.

## Research Instruments

**Intellectual Capital.** Intellectual capital in university is a term used to cover all the organisation's non-intangible or non-physical assets, which include processes, capacity for innovation, patents, the tacit knowledge of its members and their capacities, talents, and skills, society's recognition, a network of collaborators and contacts. The instrument to measure intellectual capital consists of human capital, structural capital and relational capital, which are adopted from Córcoles et al., (2011).

**Human Capital.** Human capital is the sum of the explicit and tacit knowledge of the university staff e.g. teacher, researcher, manager, administration and service staff acquired through formal and non-formal education and refresher processes

included in their activities such as attitude, capabilities, skill and the innovative, and talent. A total of 12 item questions were delivered for human capital.

**Structural Capital.** Structural capital is the explicit knowledge relating to the internal process of dissemination, communication, and management of the scientific and technical knowledge at the university. A total of 13 item questions were delivered for structural capital.

**Relational Capital.** Relational capital is the extensive collection of economic, political and institutional relations developed and upheld between the university and its non-academic partners i.e. enterprises, non-profit organisations, local government and society in general. It also includes the perception other have of the university, its image, appeal, and reliability. A total of 16 item questions were delivered for relational capital. The measurement of instrument consisted of 1 to 5 Likert scales, where 1-scale is for “not at all important” and 5-scale says that “it is very important”.

**University Performance.** Griffin (2003) defined organisational performance reflected the ability of an organisation to fulfil its stakeholders’ requirements and survived in the market. It is also known as the outcome of the actions or activities carried out by the members of the organisation to measure how well an organisation has accomplished its objectives. It can be measured by the extent to which each of university functions

is maintained toward the university goals. This study uses the university organisational performance measurement by Wang (2010). The measurement method was chosen because this method has a multidimensional performance measurement including aspects of academic and performance. The academic performance dimension can be further divided into research and educational dimensions. The management performance dimension can be further divided into financial and human resource dimension. Measurement of academic research performance consists of 12 questions, while 14 questions were used to measure the academic education performance. Measurement of financial management performance consists of 5 questions, while 10 questions were given to measure the human resources management performance. Similarly, the respondents were asked to evaluate their universities performances based on the given Likert Scale as mentioned earlier.

### Hypothesis Testing

The Partial Least Square (PLS) approach with WarpPLS program version 3.0 was used to test the hypothesis. This approach has several advantages as stated by Hair, Hult, Ringle, & Sartstedt, (2013) and Kock (2014). Firstly, SEM-PLS is suitable for this research model that uses variables that cannot be measured directly (latent variables) and has predicted measurement error. Secondly, analysis of SEM-PLS can simultaneously test multiple dependence and independence variables as used in this

research model. Thirdly, component-based SEM-PLS can overcome complexity models with small sample sizes.

## RESULTS

The SEM-PLS consisting of two sub-models of measurement is often called outer models and structural models or inner models. The first step in data analysis with SEM-PLS approach is validity and reliability test. Testing the validity with the reflective indicator was measured through convergent validity and validity discriminant. Testing reliability for reflective construct was measured by Cronbach alpha and composite reliability based on Kock (2014). Meanwhile, testing construct validity and reliability are not required for the formative indicators. This can be made by looking at the weight of indicator only. This indicator should be statistically significant and multicollinearity of variance inflation factor (VIF) should be

smaller than 3.3. Table 1 summarises the results of validity and reliability testing for reflective constructs. Overall, the results of measurement model (outer model) reflective constructs have met the criteria, so that it can proceed to the inner model or structural models. The results of this study show a loading range of 0.593 to 0.861 and agree with Hair et al., (2013), who stated that the loading between 0.40-0.70 should be taken into consideration and retain for a newly developed questionnaire. Based on criteria of each variable cross loading should be greater than 0.70, hence it also met the criteria as discriminant validity in Table 2.

The formative construct of the WarpPLS program just looked at the significance of weight indicators with criteria p value less than 0.05 and VIF (variance inflation factor) of less than 3.3 (Kock, 2014) are presented in Table 3.

Table 1  
Conclusions from the results of the validity and reliability (outer /measurement model) testing

Construct	Validity		Reliability		Full Collinearity VIF
	Loading Range	AVE	Composite Reliability	Cronbach Alpha	
Rule of thumb	> 0.5	> 0.5	> 0.7	> 0.7	< 3.3
<i>Intellectual Capital (IC)</i>					
Human Capital (HC)	0.622-0.782	0.510	0.838	0.757	2.107
Structural Capital (SC)	0.640-0.794	0.510	0.912	0.892	1.994
Relational Capital (RC)	0.599-0.798	0.513	0.904	0.879	1.713
<i>University Performance</i>					
Academic Research (PR)	0.674-0.809	0.551	0.936	0.925	1.841
Academic Education (PE)	0.583-0.861	0.548	0.856	0.789	1.469
Management Financial (PF)	0.794-0.839	0.663	0.908	0.873	2.288
Management Human Resources (PH)	0.593-0.753	0.503	0.901	0.876	2.044

Table 2  
Result of discriminant validity

Construct	Human Capital	Structural Capital	Relational Capital	University Performance			
				Academic Research	Academic Education	Financial Management	Human Resources Management
<i>Intellectual Capital</i>							
Human Capital	0.714						
Structural Capital	0.644	<b>0.714</b>					
Relational Capital	0.588	0.548	<b>0.716</b>				
<i>University Performance</i>							
Academic Research	0.209	0.216	0.251	<b>0.742</b>			
Academic Education	0.260	0.230	0.285	0.390	<b>0.740</b>		
Management Financial	0.132	0.074	0.194	0.596	0.453	<b>0.815</b>	
Management Human Resources	0.205	0.214	0.243	0.532	0.440	0.672	0.709

Table 3  
Results of formative construct testing

Constructs	P value	VIF
Rule of thumb	< 0.05	< 3.3
<i>Intellectual Capital</i>		
lv_HC	<0.001	2.052
lv_SC	<0.001	1.921
lv_RC	<0.001	1.639
<i>University Performance</i>		
lv_PR	<0.001	1.658
lv_PE	<0.001	1.336
lv_PF	<0.001	2.200
lv_PH	<0.001	1.976

Convergent validity testing for each construct indicated that there are several indicators that should be dropped. Indicators dropped since they were not fulfilling the test criteria of convergent validity and value AVE (average variance extracted) with terms of greater than 0.05. The number of indicator questions given to the respondent before the convergent validity testing were

82 items questions, as summarised in Table 4 and Table 5. After testing, the eventual number of valid and reliable indicators was 55 that could be used to test the hypothesis as indicated in Table 6. The indicators did not fulfill the test criteria convergent validity and value AVE (average variance extracted) was 27 of the 82 indicators used to measure latent variables.

Table 4  
*Item questions for variables of intellectual capital*

Intellectual Capital	Item questions
<b>Human capital</b>	<p>Typology of university staff (historical data on the increase and decrease of staffing number, staff age structure, type of contracts, etc. (HC1)</p> <p>Teaching and research staff academic and qualifications (HC2)</p> <p>Mobility of teacher and researcher (HC3)</p> <p>Scientific productivity (books) (HC4)</p> <p>Teaching and research professional qualifications (HC5)</p> <p>Mobility of graduate students (HC6)</p> <p>Efficiency of human capital (HC7)</p> <p>Teaching capacities and competence (HC8)</p> <p>Research capacities and competence (HC9)</p> <p>Capacity for teamwork (HC10)</p> <p>Leadership capacity (HC11)</p> <p>Training activities (HC12)</p>
<b>Structural Capital</b>	<p>Installations and material resources supporting pedagogical qualification and innovation (SC13)</p> <p>Installations and material resources supporting research and development (SC14)</p> <p>The institution's assessment and qualification processes (SC15)</p> <p>Organisational structure (SC16)</p> <p>Teaching management and organisation (internal communication of result, periodical exchange with foreign teachers, teaching incentives, etc.) (SC17)</p> <p>Research management and organisation (internal communication of results, efficient management of research projects, research incentives, these reads, etc.) (SC18)</p> <p>Organisation of scientific, cultural and social events (SC19)</p> <p>Productivity of the administration, academic and support services (SC20)</p> <p>Organisation culture and values (SC21)</p> <p>Efforts innovation and improvement (expenditure on innovation, staffing level, etc.) (SC22)</p> <p>Management quality (SC23)</p> <p>Information system (document processes, database, ITC use, etc.) (SC24)</p> <p>Technological capacity (total expenditure on technology, availability, and use of computer programmes, intranet/internet use, etc.) (SC25)</p>
<b>Relational capital</b>	<p>Effectiveness of graduate teaching (average duration of studies, dropout rate, graduation rate, etc.) (RC26)</p> <p>Student satisfaction (RC27)</p> <p>Graduate employability (RC28)</p> <p>Relations with students (capacity of response to student's needs, permanent relations with graduates, etc.) (RC29)</p> <p>Relations with the business world (spin-off, R&amp;D contracts and project, etc.) (RC30)</p> <p>Relations with society in general (institutional representation in external organisations, collaboration in national and international projects, etc.) (RC31)</p>

Table 4 (continue)

Intellectual Capital	Item questions
<b>Relational capital</b>	Applications and dissemination of research (dissemination of result, social appropriateness of research) (RC32) Relations with media (RC33) University image (RC34) Collaborations and contacts with public private organisations (RC35) Collaboration with order universities (RC36) Strategic links (RC37) Relations with quality institutions (RC38) The regional, national, and international reputation of the university (RC39) Social and cultural commitment (RC40) Environmental responsibility (RC41)

Source: Ramírez and Gordillo (2014)

Table 5  
Item questions for university performances

University performances	Item questions
Academic Research Performance	Number of researchers / FTE ( <i>Full Time Equivalent</i> ) by Ph.D. students, academic staff (PR48) Number of researchers from sponsors (PR49) Number of successful research grant applications (PR50) Number of Strategic Partnerships (PR51) Number of publications by research unit (PR52) Number of doctorate conferred (PR53) Exploitation of IP (PR54) Number of successful entrepreneurs (start-up companies) (PR55) Number of citations publications that have been published in journals with high impact (PR56) Membership of research council or editorship of journal (PR57) Award various reasons (PR58) Research ranking or research assessment by peer review (PR59)
Academic Education Performance	Total revenues undergraduate program (bachelors and post graduate, master and Ph.D. ) and international student admission (PE60) Number of degree programmes (PE61) Number of students per degree programme (PE62) Number of honour degrees (PE63) Number of permanent academic staff (PE64) Ratio of full-time students/academic staff (PE 65) Percentage of students who progressed after the first year of study (PE66) Percentage of students who dropped out due to various reasons (PE67) Average contact hours per week to increase the performance of students (PE68)

Table 5 (continue)

University performances	Item questions
Academic Education Performance	Students' evaluation in measuring their satisfaction level through surveys (PE69)
	Average time for completing bachelors, research and non-research masters programmes/students graduated on time for bachelors, research and non-research masters programmes (PE70)
	Percentage/rate of graduation as a result of university's educational services (PE71)
	Number of diplomas issued (PE72)
	Total acceptance of employment of graduates (PE73)
Financial Management Performance	Total amount of research income (PF74)
	Share in third-party funding and share in governmental funding to university (PF75)
	Income from tuition fees and other services (PF76)
	Annual surplus/deficit as the percentage of income from accounts (PF77)
	Annual expenditure on facilities, library and sports facilities etc.(PF78)
Human Resources Management Performance	Percentage of full-time recruitment (PH79)
	Percentage of English speaking employees (PH80)
	Number of Ph.D. students (PH81)
	Number of Professors (PH82)
	Number of assistant professors with or without Ph.D. (PH83)
	Number of lecturers (PH84)
	Number of support staff (PH85)
	Academic to non-academic staff ratio (PH86)
Annual expenditure on training and development (PH87)	

Source: Wang (2010)

Table 6  
Summary indicators dropped

Latent Variables	Early	Drop I	Drop II	Drop III	Drop Total	Finally
Intellectual Capital (IC)						
Human Capital (HC)	12	3	4	-	7	5
Structural Capital (SC)	13	3	-	-	3	10
Relational Capital (RC)	16	4	3	-	7	9
University Performance						
Academic Research (PR)	12	-	-	-	-	12
Academic Educational (PE)	14	5	3	1	9	5
Financial Management (PF)	5	-	-	-	-	5
Human Resources Management (PH)	10	1	-	-	1	9
Total	82	16	10	1	27	55

**Results of Hypothesis 1 Testing**

Assessing the structural models with PLS is started by looking at the value of R-Squares for any endogenous latent variables as the predictive power of the model structural. Figure 1 shows the result of the structural model with the value of standardized path coefficient of intellectual capital to university performance was 0.35. This value is significant at a p-value less than 0.001. The value of R<sup>2</sup> was found to be 0.12. Also, the value of R<sup>2</sup> (R-Square) of 0.12 is considered weak (Chin, 1998). This result means that only 12% of the performance university (PU) variances can be explained by the variance of intellectual capital (IC). According to Chin (1998), R-Square can be grouped into three categories of weak (0.19), moderate (0.33) and large (0.67).

Table 7 shows results of correlation coefficient value of intellectual capital (IC) to the university performance (PU) is approximately 0.349 (rounded to the image output becomes 0.35) and significant at 0.001. The output shows that the hypothesis is accepted. This means that the intellectual capital significantly influences university performance. In other words, it can be said the higher the transparency of the publication of intellectual capital of an organisation, the higher the university performance. Evaluation the PLS model with WarpPLS can give effect size, in which the f-squared effect size was conducted to determine the model goodness (Cohen, 1988). Effect size is calculated as the absolute value of the individual contribution of each predictor on the latent variables

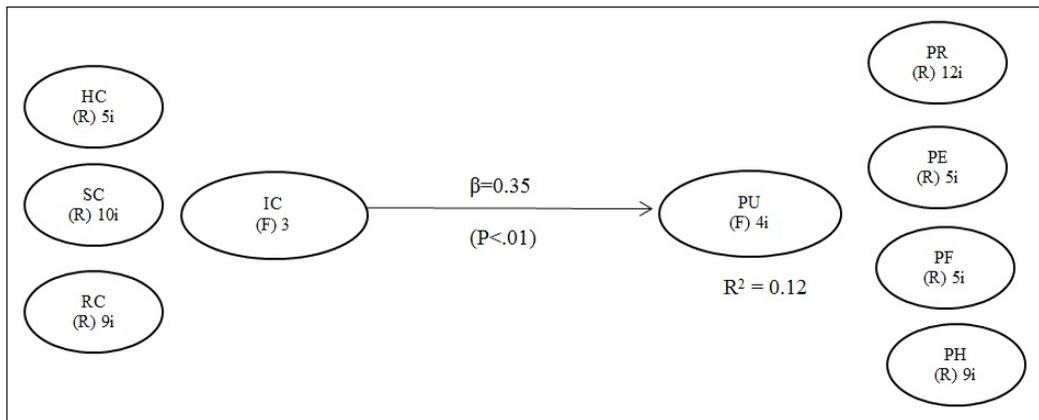


Figure 1. The result of structural model for hypothesis 1 testing

Table 7  
Output path coefficients for hypothesis 1

Path coefficients	Standard Errors	Effect Sizes	Path coefficients values	p-values	Result of hypothesis
IC → PU	0.064	0.122	0.349	<0.001	H1 Supported

R-Squared value criterion variables. Effect size can be grouped into three categories of weak (0.02), medium (0.15) and large (0.35).

The result of effect size estimation of the intellectual capital value on university performance was 0.122 and categorized into medium effect size group. This means that the effect of intellectual capital has an important influence in the organisation based on practical point of view by (Cohen, 1988).

**Results of Hypothesis 1a Testing**

The value of standardized path coefficient of human capital to university performance was 0.27 and significant at a p-value less than

0.001 (Figure 2). The obtained value R<sup>2</sup> is 0.07 and it falls into a relatively weak group R<sup>2</sup> based on Chin (1998). Table 8 shows the output of correlation coefficient values track human capital (HC) on university performance (PU) was approximately 0.272 (rounded to the output image to be 0.27) and significant at 0.001. The output shows that the hypothesis H1a is accepted. Thus, human capital (HC) significantly influences the university performance (PU).

The result of estimated effect size value of human capital (HC) on university performance (PU) is 0.074. This result falls into relatively weak group effect size and indicates that the effect of human capital disclosure has less important influence from a practical point of view (Cohen, 1988).

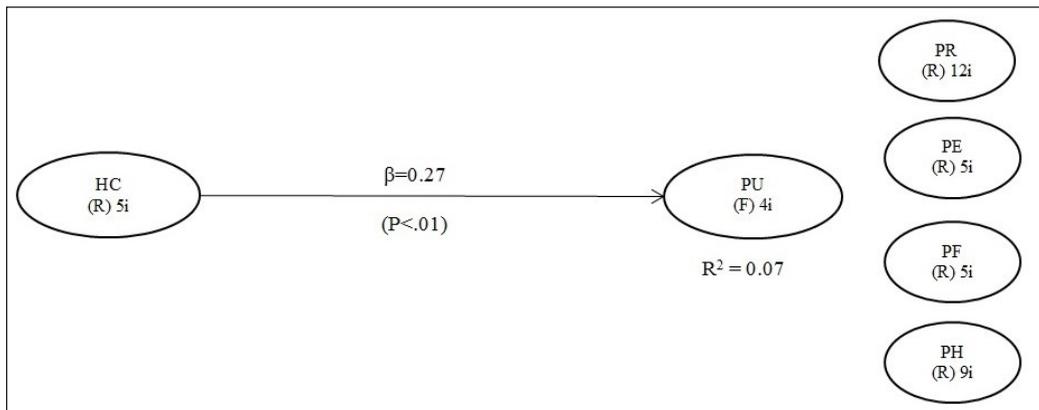


Figure 2. Results of structural model for hypothesis 1a testing

Table 8  
Output path coefficients for hypothesis 1a

Path coefficients	Standard Errors	Effect Sizes	Path coefficients values	p-values	Result Hypothesis
HC → PU	0.067	0.074	0.272	<0.001	H1a Supported

**Results of Hypothesis 1b Testing**

The value of standardized path coefficient of structural capital (SC) to university performance (PU) was equal to 0.237 (rounded to 0.24) and significant at a p-value less than 0.001 (Figure 3). The R<sup>2</sup> value is found to be 0.06 is categorised as the outcome in a relatively weak group R<sup>2</sup> based on Chin (1998).

Table 9 shows path coefficient values of structural relationship capital (SC)

on university performance (PU) was approximately 0.237 (rounded to the output image becomes 0.24) and significant at 0.001. The output shows that the hypothesis H1b is acceptable. The estimated value of effect sizes of structural capital (SC) on university performance (PU) was 0.056 and falls into relative weak group effect size. This indicates that the effect of structural capital has less important influence from a practical point of view Cohen (1988).

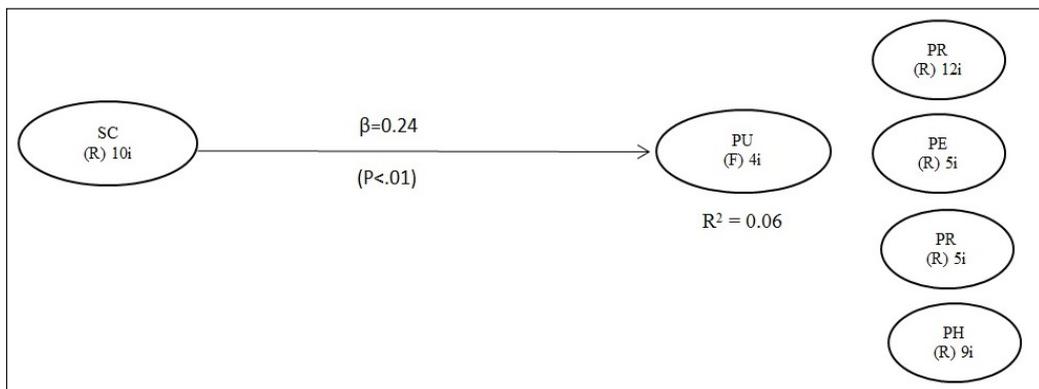


Figure 3. Results of structural model for hypothesis 1b testing

Table 9  
Output path coefficients for hypothesis 1b

Path coefficients	Standard Errors	Effect Sizes	Path coefficients values	p-values	Result Hypothesis
SC → PU	0.068	0.056	0.237	<0.001	H1b Supported

**Results of Hypothesis 1c Testing**

The value of standardized path coefficient of relational capital (RC) to university performance (PU) was 0.31 and significant at a p-value less than 0.001. The obtained value R<sup>2</sup> was 0.09 as indicated in Figure 4.

Table 10 shows the path coefficient values of relational relationship capital (RC) to the university performance (PU) was approximately 0.306 (rounded to the output image becomes 0.31) and significant at 0.001. The output shows that the hypothesis H1c is acceptable. Thus,

relational capital significantly affects the university performance. The estimated value of the effect size of the university performance to relational capital is 0.094

and falls into a relatively weak group effect size. This indicates that the influence of relational capital is less important than from practical point of view (Cohen, 1988).

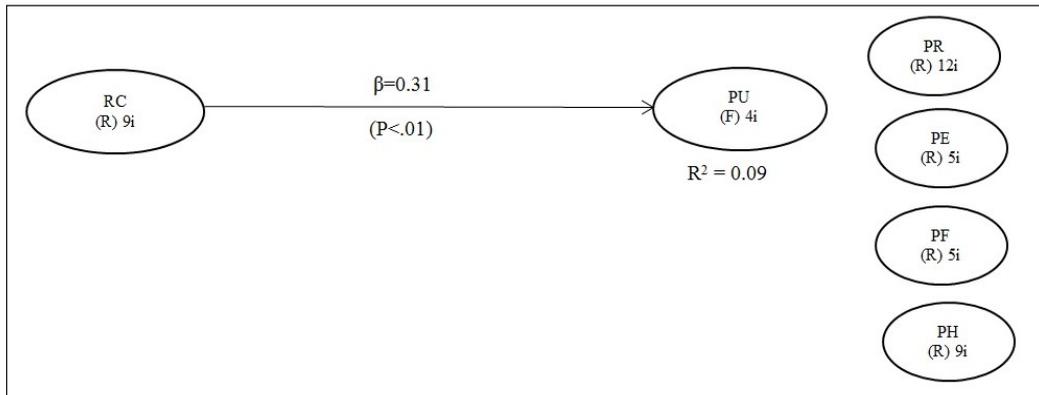


Figure 4. Result of structural model for hypothesis 1c testing

Table 10  
Output path coefficients for hypothesis 1c

Path coefficients	Standard Errors	Effect Sizes	Path coefficients values	p-values	Result Hypothesis
RC → PU	0.065	0.094	0.306	<0.001	H1c Supported

## DISCUSSION AND CONCLUSION

The research had explored the effects of intellectual capital as well as the elements of human capital, structural capital and relational capital on the performance of public universities in Indonesia. This study has successfully proven that intellectual capital is one of the important factors that affect the performance of the university through the modern management of the elements of intellectual capital such as human capital, structural capital and relational capital at public universities in Indonesia. This finding is consistent with

Gruian (2011), Lu (2012), Khaliq et al. (2013), Meihami and Karami (2014), and Hashim et al. (2015), who stated that it was important for organization to provide appropriate information on their intellectual capital, so that the information could be more effective and relevant, and gave impact to universities performance. This study also found that there is a relationship between human capital and the performance of public universities. This finding is also supported by the previous studies as reported by Khan (2010), Jamal and Saif, (2011), Lu (2012), Amin et al., (2014), and Zlate

and Enache (2015) who mentioned that aspiration to be an excellent university only could be achieved by strongly support by excellent human capital included academic and professional staff. Particularly in Indonesia, an achievement to becoming a World Class University is very important as it is the aspiration in the globalisation era. Thus, this study also proved that structural capital gave significant effects on university's performance. This result also supports the findings of previous researchers such as Wang and Chang (2005), Sharabati et al. (2010), Khalique et al. (2011), Wang et al., (2014), and Hashim et al. (2015), who indicated that structural capital was the most significant investments in a university. Relational capital is a component of intellectual capital that significantly contributes to the universities' performance in Indonesia. This study confirmed the previous research by Stewart (1997), Thursby and Kemp (2002), Wang and Chang (2005), Sharabati et al. (2010), Stevens (2011), Khalique et al. (2013), Hashim et al. (2015), and Vishnu and Gupta (2014), who said that building a partnership with outside parties or bodies, had improved the university performance. The results also encourage the university to have strong relationships both in academic and non-academic aspects with other parties. Generally, the study had demonstrated empirically a model to measure public university performances in Indonesia in the intellectual capital. As a recommendation, a great attention is needed for universities in Indonesia to ensure the

transparency of information from these institutions by building a transparency and accountability information, so that it drives the management to understand the need of intellectual capital.

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## **A Study of Entrepreneurial Mindset through the Dual Sided Role as Service Seeker and Service Provider among University Students**

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### **ABSTRACT**

The growth of entrepreneurship throughout the globe has forced policy makers to reconsider their plans. Universities have been pushed to change their missions and enforce their transition into entrepreneurial academia. When enterprise awareness is formed in students, they are preferably to develop entrepreneurial mindset and behave in enterprising and entrepreneurial ways such as to form new venture creation. Main question is, do our graduates possess the right entrepreneurial mindset to pursue entrepreneurship? This study explores the demand for services that enable such transitions from two points of view of service seeker and provider. A qualitative study was conducted among the undergraduate students in Universiti Teknologi Malaysia (UTM). The results shed light onto the mindset of students. The majorities are not recognizing themselves as creative and resourceful, and are still caught up in their student mindset and status-quo. However, there is small portion that had ideas to start their own businesses but still unclear. This finding helps the university to evaluate their entrepreneurial efforts.

*Keywords:* Entrepreneurial mindset, entrepreneurial university, new academia

### **INTRODUCTION**

The world of business and global economy has undoubtedly changed drastically as results of entrepreneurial revolution (Singer, Amorós, & Arreola, 2015). Over the last two decades, entrepreneurship has emerged into the most powerful economic force. Following this, a similar increase in the field of entrepreneurship education has formed. It is now evident that entrepreneurship, or at

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least some facets of it, *can* actually be taught (Kuratko, 2005). Professionals agree that entrepreneurs are made, not born. Drucker (1985) said, “The entrepreneurial mystique? It’s not magic; it’s not mysterious, and it has nothing to do with the genes. It’s a discipline. And, like any discipline, it can be learned”. Astin and Astin (2000) stressed out that the importance of creating an institutional climate that facilitated and reinforced individuals in their collective efforts towards the transformation. They emphasized that it was the role that higher education played in this manner and thus could not be neglected.

It stresses out the role of activities that focus on a more “micro” approach on characteristics of the entrepreneurs (Kriewall & Mekemson, 2010). Such tradition is concerned with the *entrepreneurial mindset* (EM) as stated by (Davis, Hall, & Mayer, 2016), “...defined as the constellation of motives, skills, and thought processes that distinguish entrepreneurs from non-entrepreneurs”. The mindset is essential to entrepreneurial success. There are several studies introducing EM indicators to identify personality variables that may have a potent impact on entrepreneurial variables. The indicators are categorized into Personality traits (such as Self-Confidence, Action Orientation, Risk Acceptance, Need to Achieve, readiness for venture) and skills (such as Persistence, thinking/looking from a Higher Order, Idea Generation, Originality, Execution, User oriented thinking) (Ashourizadeh, Chavoushi, & Schøtt, 2014; Ngek, 2015; Reid & Ferguson,

2010, 2011). The accumulation of the EM indicators is defined to be thought to promote entrepreneurial discipline (Davis et al., 2016; Mwasalwiba, 2010).

In the midst of this, universities are also engaging their students in the world-of-work. The practice is usually through a set of mechanisms, including work-integrated learning. The major effort has been dedicated to undergraduate education. Universities consider the value placed on educating citizens who can engage and successfully contribute to the growth of the society in their mission statements (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001; Roberts, 2003). Although teaching skills to students through co-curricular and academic programs is a recent trend, the most trend is to reach entrepreneurial academia through such programs (Davis et al., 2016; Siegel & Wright, 2015). The recent developments in the curricula and programs devoted to entrepreneurship growth and development, and new-venture creation have been remarkable. The number of universities or educational institutions that offer courses related to entrepreneurship has grown.

The emerging perspective on academic entrepreneurship has challenged the universities. The traditional rationale for academic was that it would teach the most recent knowledge to the students, collaborate in research to create relevant knowledge and contribute to the body of science, establish collaboration with industry to enhance the commercialization of university research and also serve as a source of revenue for the

university (Etzkowitz, Webster, Gebhardt, & Terra, 2000). Therefore, they focused mainly on metrics of university technology transfer activity, such as, patents, licenses and start-ups/spin-offs (Hisrich & Smilor, 1988; O’Shea, Allen, Morse, O’Gorman, & Roche, 2007). While some institutions were really successful in showing great numbers of such metrics, the metrics was inefficient (Rothaermel, Agung, & Jiang, 2007).

The most recent view of the universities approaches towards entrepreneurial is summarized in Table 1, which was adapted from (Siegel & Wright, 2015). The most recent viewpoints have broadened out the rationale to the wider social and economic benefits to the university ecosystem. The key elements facilitating entrepreneurship to the university ecosystem are: (1) incubators/accelerators that provide support in terms of property-based institutions; (2) entrepreneurship courses and programs in multiple colleges/schools; (3) the establishment of entrepreneurship centers; (4) ‘surrogate’ entrepreneurs who stimulate commercialization and startup creation

in campus; and (5) a rapid increase in support of various aspects of entrepreneurial ecosystem, including student business plan competitions, leadership and business skill development programs.

This shift concerns a wider contribution to society and at the same time, includes a greater emphasis on teaching (Drucker, 1985). This has induced a move towards indirect aspects of academic entrepreneurship, such as, social ventures and start-ups launched by students, transfer of knowledge to existing businesses (Åstebro, Bazzazian, & Braguinsky, 2012). Research findings showed that entrepreneurship courses are not sufficient to provide skills or mindsets (Özşahin, Askun, & Yıldırım, 2011) and universities should go beyond and above for creating entrepreneurs that can contribute to economic growth (Knockaert, Ucbasaran, Wright, & Clarysse, 2011). Previous studies affirm the actual implementation of strategies in entrepreneurial practice do not meet the desired outcomes, and this affirms the gap in the studies on successful implementation requirements (Kaufmann,

Table 1  
*Traditional and emerging perspectives on academic entrepreneurship*

Theme	Old perspective	New perspective
Why	To generate direct financial returns	To provide a wider social and economic benefit to the university ecosystem
What	Academic spin-offs; licensing; patents	Student and alumni start-ups; entrepreneurially equipped students; job creation in the local region or state
Who	Academic faculty and post-docs	Students; alumni; on-campus industry collaborations; surrogate entrepreneurs
How	Technology Transfer Offices (TTOs); science parks	Accelerators; Entrepreneurship garages; student business plan competitions; collaborative networks with industry and alumni; employee mobility; public-private ‘incubators’

Fessas, & Diensberg, 2008). On the other hand, the significance of stakeholders' relationships in entrepreneurship research is well acknowledged (Hayter, 2013). Current research assets the role of value co-creating to understand how the universities strategically and operationally, enhance their services in entrepreneurial mindset promotion (Shams & Hans Ruediger, 2016).

What is less clear from this growing body of literature is what drives successful promotion of entrepreneurial mindset among students in academia. Although education programs provide opportunities to exercise responsibilities, and start one's own business (Peterman & Kennedy, 2003), the issue remains on how to encourage the development of the roles through a teaching program (Robertson, Collins, Medeira, & Slater, 2003). Peterman and Kennedy (2003) portrayed that that people who had low awareness of entrepreneurial experience had more need to entrepreneurial education before starting a new business. In this regard, the concept in mind is the entrepreneurship behavior. Entrepreneurship behavior is a broader concept that also includes traditional skills and efforts associated with a particular form of business activity (Pihie & Sani, 2009). The concept of entrepreneurship behavior is relate to personal characteristics such as being able to recognize the opportunities and willingness to change.

Despite all the efforts put in the study of how should the academia prepare, plan and respond to the entrepreneurial growth of student, there is practically no study that

investigates the essence of needs and demand form the viewpoint of students. This, in turn, could be of high importance to the planners and policy makers in establishing of the proper plans and action.

Therefore, this study sets out to investigate the presence of entrepreneurial mindset among the students via investigating the demands of entrepreneurial promotion.

### **Aim of the Study**

Considering the issues that the education sector in Malaysia is facing, it is a crucial time and actions should be taken. The financial fragility demands for the attention of government and policy maker to focus on effective use of human capital and entrepreneurial development. In 2014 alone, the employability rate for graduates in Malaysia was only 68.85%, and 44.6% graduates in 2013 were getting a salary less than RM1500 (USD370) per month ( Ministry of Higher Edcation [MOHE], 2015). With these issues discussed, there is a critical need to empower graduates into becoming entrepreneurial and innovative.

Entrepreneurial University should provide an atmosphere that synergizes the concept of Enterprise and Entrepreneurship, which will lead to the growth of Innovation. It essentially starts from the capacity to build and manage skills that can maximize the effective use of human capital. Next comes the co-curricular and academic leadership and entrepreneurial development programs. This will encounter the challenges that include student employability, enhancing student experience, practically implementing

enterprise and entrepreneurship education, designing new pedagogy, exploring new employment pathways, engaging with industries and so on.

That being said, many counterparts have devoted their resources to engage in promoting activities to their workforce. Universiti Teknologi Malaysia (UTM), for example, has devoted tremendous effort in transforming its academia in line with the National Higher Education Strategic Plan (PSPTN). Establishing a *New Academia Learning Innovation (NALI) Model*, the university hopes to reach entrepreneurial academia. NALI is a new approach “comprising student-centered and blended learning philosophy, multiple learning modes and materials towards achieving entrepreneurial academia.” It comprises the concept of blended learning, a combination of active and systematic strategy with the use of digital teaching materials in class. Its pedagogy/andragogy includes case study teaching, problem-based learning, scenario-based learning, peer instruction, service learning, Conceive-Design-Implement-Operate (CDIO) practices, outcome-based education, high-impact educational practices (HIEPs). In addition, it provides Job Creation program to which students are able to register as the co-curricular course.

Despite all the efforts, the challenge of complete academic awareness for entrepreneurship remains. In addition, it has become important to identify the best service types and skill sets to provide. While it can be argued that some acceptability has been attained, there are critical challenges

in the current state of entrepreneurship education at this university. The major question is how the students, who are the receiving party of the services, perceive that the services should be provided? What they seek, how they want to get it, and what is the core benefit of the service they would prefer? This article focuses on identifying a dual sided role of university’s students as seeker and service provider. Except for a single paper (Harfsheno & Rozan, 2012), the question have not been asked nor studied. The exploration would open up a better understanding on the readiness for the creation of different student ventures among UTM students. Meanwhile, their entrepreneurial mindsets are gauged as they should include recognizing themselves as a creative and resourceful person that generate multiple ideas, concepts and solutions in response to identified problem and opportunities ( Quality Assurance Agency [QAA], 2012). This study will contribute significantly to research, which would make new discovery that modifies, agree or probably refute to the current Entrepreneurial University attempt. Entrepreneurial University is a term used to refer to a university that has transformations due to the reduction in the university funding from government sources and the emergence of a competitive market for education and research (Etzkowitz, 2003). The practical outcomes are the realization of new venture creation with the real-world engagement of multiple stakeholders, mainly student, enterprises and universities and this could improve the status quo for all parties.

Besides, student will gain reasonable working experience while in campus and prior to graduation that could be included as their portfolio.

**METHODS**

This study was developed by investigating student as the unit of analysis. A Qualitative approach was chosen. The selection is due to the exploratory approach of this research. Since the study seeks to provide insights into the problem or helps to develop ideas, a qualitative research is the best suitable method. In doing that, a semi structured approach was used to give more freedom while keeping the structure of study at the control, and user story tools were the strategy used to explore different types of student offers in UTM.

The primary source of data for this study was structured interviews. The researchers developed a protocol for structured interviews with respondents. The data collection used guided interviews. An initial protocol of questions was developed, based on two perspectives of service seeker and provider. An open-ended questionnaire was designed to collect the answers to Three (3) questions from two points of view (i.e. Six questions) so that the perspectives of the two groups could be compared and contrasted (Table 2). The additional background information was asked at the end of the questionnaire. To ensure the validity of the study methodology, the question protocols, raw data, research process and findings were reviewed by experts in the field who were not directly associated with the study.

Table 2  
*Data collection protocol*

Service <b>Seeker</b> Perspective	Service <b>Provider</b> Perspective
As a .....	As a .....
I want to ( <b>seek/find</b> ) .....	I want to ( <b>seek/find</b> ) .....
So that .....	So that .....

**RESULTS**

**Selection of Participants**

Participants in this study were students at the undergraduate level at Universiti Teknologi Malaysia. The selection was random and the subjects were acquired on campus, either in classes or dorm rooms. The interview forms were given to the subjects in printed format and after a briefing, they were given time to answer the questions. The questions and

answers were both written in English. A total number of 254 responses were documented.

**Qualitative Analysis**

Data demographics showed 63% of the respondents were female. All the respondents were undergraduate and local students (aged between 18 and 25) and stayed in campus hostels. The program of study was versatile and comprehensive.

The qualitative data gathered, was later entered into NVivo 11 and analyzed utilizing it. All valid responses from participants were considered for data analysis. Frequency of mention of each word was the basis of content analysis. Terms with similar meaning were grouped into categories using inductive coding by triangulation (Thomas, 2006). The data was later evaluated to see if words should be classified into categories. Frequency of mention of words, were calculated without considering if words were provided by the same participant or by different participants. The remaining of data was mapped to the most appropriate overarching. The codes generated in the inductive coding process were later classified under a higher level of codes. These codes, so-called first-order codes, are generated deductively and based on the notion of the questions asked in the interviews. The first-order codes are summarized in Table 3.

Table 3  
*Higher order codes*

The Codes	Roles/Ventures	Service Type
Viewpoints	Seeker	Seeker
	Provider	Provider

Each of the codes at each category is treated from two views, reflecting namely service seeker and service providers' point of view. The viewpoint of provider would lead to formation of a service. This view point would be expected to portray the actual perceptions of the provider towards the service they provide and their intentions

to provide it. The seekers' viewpoint, on the other hand, is expected to reveal the requirement in the services the respondent is seeking to the satisfaction level. So, the codes that were established based on the notion of the questions, and the answers to them became the second-order codes.

The researchers met on many majority of cases (89.4%) during data collection and analysis that respondents tended to imagine a single service and took roles of seeker and provider to respond to it. Once all transcripts had been coded, the researchers read the transcribed interviews several times. It was to grasp a sense of the overall data. Meanwhile, memos, notable short phrases, issues and keys words were recorded to facilitate the further analysis. These themes allowed careful analysis of the responses to interview questions and the contrast of closely related and overlapping responses from two points of view. Next, the notes and memos helped to elaborate concepts worth recording as codes and by this analysis, the content meaning was reduced to core concepts (Kvale, 2007). Once the researcher finished the person-by-person analysis, entire body of data was interpreted and counter-ranked based on the core concepts identified. During this process, the nuances in the different points of view were considered. Then, the researchers established the comparisons between two points of view and selected quotations to illustrate the various points. However, the researchers met difficulty to determine whether thematic saturation had been achieved by examining the strength of data

linked to second-order themes. That is the summarized stat of data in codes depicted a rather unexpected pattern of response. This pattern which will be discussed later, persuaded the researchers not to analyze the data more in depth and rather focus on the portraying the codes and the remaining

meaning behind it, determining any apparent additional information lies in the results of coding. The coding summary is included in Table 4. Note that Career Improvement is subcategory of Education Improvement and IT & Facility are under Facility. The highest rank is annotated in bold.

Table 4  
Coding results

Roles/Ventures			Service Type		
Codes (Concepts)	Seeker	Provider	Codes (Concepts)	Seeker	Provider
Arts	1 (0.39%)	12 (4.72%)	Consultation	0 (0%)	12 (4.72%)
Customer	1 (0.39%)	6 (2.36%)	Education Improvement	<b>89 (35.04%)</b>	20 (7.87%)
Dependent Jobs	4 (1.57%)	23 (9.06%)	Career Improvement	74 (29.13%)	19 (7.48%)
Family & Personal	6 (2.36%)	13 (5.12%)	Facility	31 (12.2%)	10 (3.94%)
IT & Games	5 (1.97%)	26 (10.24%)	IT & Game	11 (4.33%)	14 (5.51%)
Passion	3 (1.18%)	13 (5.12%)	Personal Improvement	28 (11.02%)	16 (6.3%)
Religion	0 (0%)	4 (1.57%)	Political	1 (0.39%)	0 (0%)
Independent Jobs	8 (3.15%)	27 (10.63%)	Real Business Ideas	15 (5.91%)	24 (9.45%)
Sports	14 (5.51%)	51 (20.08%)	Service Quality	1 (0.39%)	10 (3.94%)
Student	<b>219 (86.22%)</b>	<b>66 (25.98%)</b>	Training	15 (5.91%)	<b>67 (26.38%)</b>
Volunteer	2 (0.79%)	26 (10.24%)	Volunteering	2 (0.79%)	38 (14.96%)
			Work In Area Of Study	3 (1.18%)	8 (3.15%)

### Roles Assumed

When it comes to assuming the role of service provider and seeker, 11 categories of roles were documented based on the transcripts. Despite the aim of the study and interview, the majority of students did not assume the role of an actual service provider or seeker. Rather, it was observed that the majority (86.22% as seeker and 25.98% as the provider) viewed themselves as students. The students in this category had used the term ‘Student’ to respond to the question

“As a” (e.g. “*As a mechanical engineering student, I want to be more efficient and knowledgeable*”). This means even when asked to think of a service, students are not able to imagine themselves as anything other than a student. The second majority of students spoke about the activities that support their passions. This includes sports in their spare time (5.51% as seeker and 20.08% as the provider) and other passions such as Arts (0.39% as seeker and 4.72% as the provider) or other passions (1.18% as

seeker and 5.12% as the provider).). This category of students was willing to provide trainings for the passion they followed or take part in sports teams for hours after class (providers) or were seeking such trainings or teammates to play with (seeker) (e.g. *“As a football player, I want to provide coaching so that everyone [knows the] rules of football [game]”*). Surprisingly, a number of students talked about family roles or personal issues (2.36% as seeker and 5.12% as the provider) which is not the actual service (e.g. *“As a daughter, I want to go back to my home every weekend”*).

All this implies the fact that the subjects of the interview (undergraduate students at Universiti Teknologi Malaysia) have not clearly shifted the mindset of a student who is served in an institution towards an active work force, ready to start a service providing business. The witness to this induction is the number of students who was able to really take the role as a service provider (10.63% as an independent provider and 9.06% as a dependent one). This minority group was able to think of themselves as an active work force that will work in a company, or start their own business. This shows that they have started to evolve a mindset beyond a student's. While, the remaining of the students were still caught up in the challenges of being a student, and their ambitions were limited to educational concerns. It also can be concluded that students have not a clear comprehension of what they should seek in terms of service and what defines a service.

### Service Type as a Provider

In line with the aim of this study, researchers asked the respondents to explain what they would provide. The types of services talked about as a provider in the responses is an indicator of entrepreneurial mindset of respondents. Researchers expected a range of services that have potentials of starting a business or the improvements to a business. Quite the contrary to our expectations, researchers noticed a rather different range of responses to the question. Majority of respondents (46.46%) were hype to offer training services. This included tutoring to classmates and short courses (15.35%) to help them have a good education (e.g. *“As a quite good student in mathematic subject I want to [give] small tuition classes”*) and enthusiastic consultation and guidance to new-comers (4.72%) (e.g. *“I want to [give] advice and guideline to my junior about my learning experience in my 2<sup>nd</sup> and 1<sup>st</sup> year”*). This is in line with the results for the role of ‘Student’ assumed by the respondents as the seeker (cf supra). Few of these respondents (7.48%) talked about the same concept, but only with a slightly different aim which was to prepare the students for their future career and prepare them to enter the job market (e.g. *“I want to make high points so that I can easily get a job”* or *“I want to share my knowledge with my junior to improve my experience in teaching”*). 26.38% of respondents were happy to offer non-educational tutoring (such as *“swimming coaching”*, *“teach the knowledge of playing FIFA”*, *“grooming coaching”*). This mindset, too, did not fulfill our expectations.

The next category in terms of the number, are respondents who were ready to provide volunteering activities (14.96%). 11.42% wanted to provide physical and electronic facilities. This included Internet support, bus and motorbike transfer in campus, study areas and tables and sports complex in campus.

At the end, it is worth mentioning that 9.45% of respondents had the right idea in their mind and were willing to provide a service that, if not unique, was interesting enough to work on it. This comprises a total of 24 subjects who were interested in expand an idea into a business. This category is the ultimate corner stone focus of this study. 9 respondents were interested in food-related businesses ranging from opening a restaurant to a hawker food truck. The other popular idea (5 respondents) was delivery services for diverse types of service such as food and laundry. Two subjects wanted to open a tuition center. The other business ideas were observed once and are as follows: Set up a dairy product stall, Start their own business, Become a prominent and independent seller, Construction consultation, Online knowledge pooling platform, Open cyber café, Open a club, Import electronic audio rig component, and Provide design services.

### Service Type as a Seeker

Quite similar to the provider's view, most of the respondents were looking for trainings. Educational trainings and tutoring (35.04%), career improvement trainings (29.13%) were the most frequent, and 5.91% of respondents asked for the in-campus

trainings that could improve their abilities at non-educational activities and skills. The second majority of respondents were seeking better facility (16.54%) (Such as "*faster and reliable internet connection*", "*a better lab*", "*in-campus reliable and cheap transport*"). 11.02% of respondents were seeking personal improvements and services that can provide such improvements (e.g. "*I want to find the easy way to make my brother happy and ways to get along with him easier*").

Surprisingly, only 5.91% of subjects had the right idea of the service seeking and responded in accordance the question with a real business idea or service improvement plans. However, the majority of these respondents (8 out of 15) were interested in learning about business management, and entrepreneurial skills and did not specify any service or idea of business. The few other respondents were seeking the skills, they felt necessary to start their business that they mentioned in answer to questions from the provider point of view. One respondent sought bundle shop; one wanted to learn the skills to become a barber; the other wanted to learn about design and interface to become a designer and the other about the way to handle the engineering equipment.

### DISCUSSION

The main goal of this study is to set out to investigate the presence of entrepreneurial mindset among the students via investigating the demands of entrepreneurial promotion. Here, we explored the types of services that would expose better understanding on

the readiness for the creation of different student ventures among UTM students. The services were scrutinized from two points of view namely service seeker and service provide, identifying differences, to elaborate more information about the services. Also, the queries about service were designed in a way to capture the position of the respondents in regard to the service, what they see essential about the service and what they see as the cornerstone of the services. Furthermore, the aim of the respondents in seeking or providing the services was asked. The data was later analyzed using qualitative methodology, to define these concepts, and provide a rich understanding.

However, the analysis revealed a surprisingly unexpected response pattern that influenced the path of analysis dramatically. To tackle the patterns, researchers started to scrutinize the data inductively, each respondent at a time, to grasp a generic view of the data. Later, the general concepts in the data were extracted and the data was ranked accordingly.

The results lead to findings that are as follows:

- Perspectives based on roles showed the respondents had very limited scope of their potential. The roles that respondent assumed as service seekers and service providers is a depiction of this. It was found that majority of students assumed the role of a student. That latter was evident in the type of the service they demanded. Most of the services were related to educational developments and related trainings. The second group that sought further only dreamt about working in the same area of their study and get hired. The missing part here, is the thinking out of the box. It can be a result of the air-gap between university and labor market, especially the entrepreneurial market. The university should bridge this gap with networking possibilities and events that explore the possibilities beyond the graduation.
- Majority of students have not developed the mindset of an entrepreneur. The few students who had ideas of starting a business lacked innovation drastically. It happened not only for those who had talked about a service related to education, but also for those that talked about other types of services. The small portion of the respondents who had an unclear idea to start their own business or improve an existing process for the aim of increasing functionality and profitability, talked about the ideas that were of little margin importance in terms of business value and economic potential. Furthermore, there was only one respondent considering a technical business opportunity. The business ideas that they had were already tried and had no innovation element in them. In addition, the profit margin

to the ideas was very limited that eliminated any chance of further development to the idea. Great ideas and innovations that can attract the venture capitalists should have a noble feature. It basically means to look outside of existing problem solving methods and to see how others are not solving problems. This might imply the lack of innovative mindset among students at the undergraduate level, which is a skill that can be triggered and developed by the policies, programs and workshops in university.

- Even more surprising, the majority of the respondents have not developed the mindset of a workforce and are still caught up in the student mindset. It was evident, once again, that the entrepreneurial mindset is not at the desired levels among undergraduate students.
- Finally, the urge to promote the entrepreneurship among the students is well felt. Although the university has started plans to make a change in this matter, there are quite a number of issues that still need to be tackled. This study and future studies in this regard can help to identify the existing gap. Further studies are required to propose proper approaches to address the issues.

The findings fit with the previous studies that tried to explore the extent of entrepreneurial mindset among undergraduate students (i.e. same population) (Harfsheno & Rozan, 2012). The results of the study showed less than 10% of respondents could roughly be categorized as those of a notable entrepreneurial tendency. The results are not surprising when considering that the plans to promote the entrepreneurship among the students of UTM are still new and yet to reach maturity.

### **Implications**

When viewed through the lens of university managers and strategic planners, the findings and discussion of this study led to the following conclusions and recommendations:

The university units that are in charge of job replacement, together with the curriculum developers should pay more attention to the implantation of innovative mindset, and recognition of opportunities of entrepreneurship other than job replacement in students' minds. It is to increase the knowledge of students to the possibilities they can explore that requires a different set of skills. Meanwhile, the plan to transfer these skills to the students can be established as well (e.g. virtual clusters).

The immaturity of business ideas among students' demands for further exposure and trainings. Existing entrepreneurial trainings should help the small portion of the respondents who had an opaque idea to work on them, polish it into a feasible and profitable idea. It also can be coupled with physical resources and financial supports.

## CONCLUSION

Based on the findings, it was found that the entrepreneurial mindset among the respondents of study is relatively minimal. More effort should be focused on developing their entrepreneurial mindsets by recognizing themselves as a creative or resourceful person and someone who can translate ideas by thinking beyond their status quo as students. Also, the study suggests to further drill down into a more specific population of students and alumni who have already attempted to start their business. They could be selected regardless of the success or failure of their business. The type of business is not differentiating to this study. Also, the population of graduated students who have entered the job market, and work can be considered. The comparison of the responses between these two categories can provide interesting information as well.

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## **Knowledge Acquisition toward Startups' Perspectives: Empirical Cross-Case Study of Leading Technology Business Incubators in Thailand**

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### **ABSTRACT**

Startup progress is recognized as a vital driver to sustain economies. A technology business incubator (TBI) is one of the devices to serve it. Recent studies have found that one of the TBI's key success factors in assisting startups' survival is knowledge management (KM), particularly knowledge acquisition (KA). This study aims to examine startups' behaviors toward their KA that occurred between before and after accessing early-stage incubation (ESI) of TBIs. The study used a qualitative case survey research (Yin, 2013) for five selected cases of leading TBIs in Thailand, namely PSU, KKU, SUT, NSTDA, and STEP. Purposive sampling was used with data gathered from a total of 114 startups who were incubated from 2014 to 2016. Data were collected using primary data through a survey method with semi-structured questionnaires. A summative content analysis, validity, and reliability were used and tested. A conceptual model was created from reviewing recent

studies and theories, including resource-based view, knowledge-based view, and KA theories to explore purposes. Findings show that startups' behaviors toward KA before accessing ESI need to acquire technical knowledge through online channels using "search engines" and "target websites" with more frequencies of KA. Startups' demand toward KA after accessing ESI is

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the need to acquire business rather than technical knowledge through both offline and online channels regarding methods related to different knowledge sources with more frequency. This shows both academic and practical contributions conducted at leading TBIs.

*Keywords:* Early-stage incubation, knowledge acquisition, startup, technology business incubator

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## INTRODUCTION

Startups are vital drivers for both economic and social development in developing countries. Unfortunately, startups tend to fail in higher proportions than mature businesses. However, business incubation is one of the various mechanisms that have been developed to enhance survival rates and performance of startups (Benjamins, 2009). Business incubators (BIs) provide new firms with physical facilities and a variety of business services to help them increase their chances of surviving in the early stages of development (Organisation for Economic Co-Operation and Development, 1997). Other than BIs, in general, the technology business incubator (TBI) is one of the types of BIs that focus on promoting technology startups. The TBI supports businesses wanting to sell their technology-based products or services to the marketplace, not the development of technologies as such (Dietrich, Harley, & Langbein, 2010). In addition, TBIs are more vital than BIs because new technology startups are suggested to exhibit a “multiplier” effect

in terms of job creation. Considering the process model of TBIs, the author has referred to the Carter and Jones-Evans process model (Hannon, 2003), which presents steps in the incubation process. Moreover, one of the most important steps in Carter and Jones-Evans’ process is firm formation and development or early-stage incubation (ESI) because it is the stage for which early-stage entrepreneurs frequently seek resources (Thorpe, Holt, Macpherson, & Pittaway, 2005). Knowledge resources are important resources for the firm during ESI of the business (Macpherson & Holt, 2007; Studdard & Munchus, 2009; Thorpe et al., 2005), therefore, the study has referred to the theory of knowledge-based view (KBV), which is a part of the resource-based view (RBV). It could be used to explain the incubation process as the accumulation and application of new venture development know-how to the mentoring of the incubatees (Nonaka, 1994). Consequently, these lead to research interest and scope of the study focused on knowledge acquisition (KA). In addition, there exists no current focus involving startups’ KA comparing before and after startups’ access to ESI as empirical cases studied within leading TBIs in Thailand.

The study aims to focus on examining startups’ behaviors toward their KA comparing before and after accessing ESI of TBIs through five cross-case analyses. By the context of the aims and recent studies referred to in Section 2.3, we consider the main issues to cover the research questions involved in startups’ behaviors toward KA.

The remainder of this paper is organized as follows: Section 2 analyzes literature reviews and recent studies on the business incubation process and relevant theories based on systematic approaches, Section 3 presents materials and methods, Section 4 exhibits results and discussion, Section 5 presents conclusions, Section 6 shows implications for theory and practice, and Section 7 exhibits limitations and further research directions.

## **RELEVANT THEORIES AND RECENT STUDIES**

### **Carter and Jones-Evans' Business Incubation Process Model (2000)**

Regarding TBIs' process models as explained in Section 1, this research conducted a review of relevant TBI process models and has finally referred to the Carter and Jones-Evans process model (Hannon, 2003) as the benchmark, which clearly presents each business incubation process conforming to TBIs. Besides, the Carter and Jones-Evans process model (Hannon, 2003) has also been recognized as the outstanding TBI process model that clearly sets six important stages, namely, idea formulation, opportunity recognition, pre-start planning and preparation, entry and launch, and post-entry development. However, this study mainly focuses on the pre-start planning and preparation stages, which show important activities in ESI. Finally, the authors introduce the incubation process model that has been used to organize the conceptual framework that the Carter and Jones-Evans process model (Hannon, 2003)

proposed as the key steps in the incubation process (Hannon, 2003) to construct the conceptual framework as shown in Figure 1 and to develop the KA models derived from lessons learned from leading TBIs in Thailand. Thus, the study concentrates on the ESI, which is one of the vital steps of TBI processes affecting startups' survival.

### **Theory of Resource-Based View (RBV)**

RBV of the firm explained that tangible and intangible resources are important components of the firm's competitive advantage. Basically, the RBV model comprises three components, namely, (1) tangible resources, (2) intangible resources, and (3) organizational capabilities (Barney, 1991; Studdard & Munchus, 2009). Moreover, the RBV also focuses on knowledge as an important resource in BIs (Peters, Rice, & Sundararajan, 2004; Rice, 2002), especially, in preparing the knowledge resource as the suitable resource for the ESI (Macpherson & Holt, 2007; Studdard & Munchus, 2009).

### **Theory of Knowledge-Based View (KBV) and Knowledge Acquisition (KA)**

The KBV, which is a subset of RBV, can be used to explain the incubation process as the accumulation and application of new venture development know-how to the mentoring of the incubatees (Nonaka, 1994). In addition, KBV on Nonaka's theory implies that the interaction among management, organization, and knowledge creation. Furthermore, it is useful for the

challenges that knowledge organizations are facing and to understand KA, transfer, and improvement in BIs. Thus, KBV has become an important factor of TBIs to integrate knowledge-creating organizations (Hansson, 2007; Nonaka, 1994; Veronica & Rojas, 2010). However, the task of KA is to extract knowledge for an information system or expert system by setting up sound, perfect, effective knowledge bases (Hao & Qu, 2013).

As stated in Section 2.1, early-stage entrepreneurs frequently seek resources for the firm during the ESI (Macpherson & Holt, 2007; Thorpe et al., 2005). Moreover, the acquisition of critical outside resources or actors becomes a necessary component in the ESI of startups. While the ability to generate these resources is accomplished through the entrepreneur's personal initiative to gather knowledge (Studdard & Munchus, 2009), resources are difficult to acquire due to circumstances outside the boundaries of the firm (Kirchhoff, 1994). Moreover, startups lack the ability to generate sufficiently substantial amounts of internal know-how due to the limited human capital effect (Macpherson & Holt, 2007; Thorpe et al., 2005; Yli-Renko, Autio, & Sapienza, 2001). If the startup's access to actors in the social structure is limited, then acquisition of resources for firm formation and development becomes limited. Thus, startups can lose or fail to gain their competitive advantage due to resource constraints (Gaskill, Van Auken, & Manning, 1993; Kirchhoff, 1994; Studdard, 2006). Besides, high technology startups

may have a high degree of technological knowledge but may lack knowledge regarding small business management (Lee, Miller, & Hancock, 2000; Rice, 2002). However, BIs are institutions designed to assist with the fundamentals of business process knowledge (Studdard, 2006).

Regarding types of knowledge, they can be divided into categories based on the 10 functional areas: (1) general management, (2) financial management, (3) marketing and selling, (4) market research, (5) product R&D, (6) engineering, (7) production, (8) distribution, (9) legal affairs, and (10) personnel (Studdard, 2006). In addition, these functional categories, needed for ESI, contain knowledge resources (Kazanjian, 1988; Studdard, 2006). However, the essence is that startups require different types of knowledge (technological and business) and the social actors, knowledge providers, within the external environment possess knowledge in various forms and degrees (Macpherson & Holt, 2007; Thorpe et al., 2005).

In addition, the sources for acquiring resources come from the networks available to the firms. Besides, the significant outcome gained by firms in the incubation process is KA through the interaction with the business incubator manager, whose main role is to assist the firm with the ability to acquire knowledge. However, the incubator manager, if unable to contribute knowledge directly, does possess the ability to link the firm with other actors in and outside the social structure of the incubator (Hansson, 2007). Linking the firm to other actors,

inside and outside the BIs, facilitates the entrepreneurial firm's acquisition of knowledge (Rice, 2002). However, the closed structure of an incubator promotes the engagement in social relationships, which gives the firm a better position for motivating trust and increasing business process knowledge; hence, startup firms require business process knowledge to ensure the success of the firm in the marketplace (Studdard, 2006).

By the contexts reviewed in the preceding paragraphs, considering the main issues to cover the questions involving in startups' behaviors toward KA consists of (1) Do startups need to acquire knowledge?, (2) What types of knowledge do startups need to acquire?, and (3) Which sources do startups need to acquire? However, the study has been designed to cover two more research questions both of which were not addressed in recent studies reviewed, to be useful in practical contributions to

improve some of the TBI KM systems, (4) Which methods do startups use to acquire knowledge? and (5) How often do startups acquire the knowledge?

In addition, most past studies focused on exploring startups' KA that occurred during ESI, but they did not investigate the comparison of KA that occurred before and after startups' access to ESI; thus, this study has been designed to cover them.

### Conceptual Framework

According to the review of the literature and recent studies, the conceptual framework has been developed by integrating the incubation process explained in Section 2.1 and knowledge model (Naumov, 2011) to find answers to the questions as proposed in Section 2.3. As such, these lead to the development of the framework shown in Figure 1.

According to Figure 1, the framework is proposed overall of our research study as a

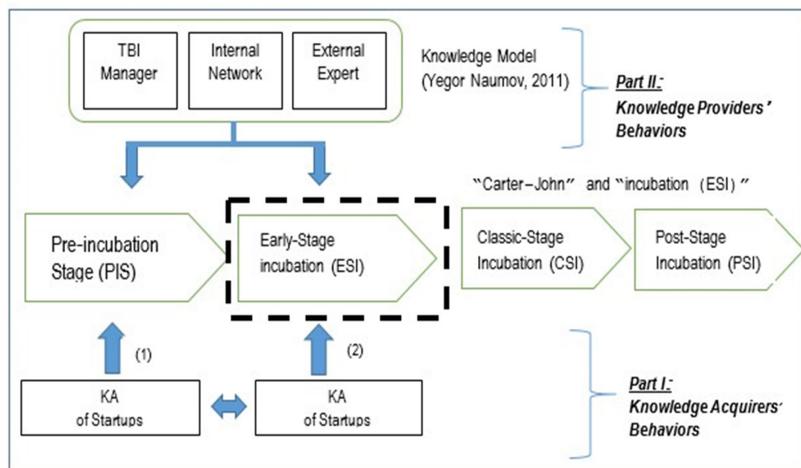


Figure 1. Research conceptual framework (See Supplementary Data File for details)

big picture; divided into two parts expressed as follows:

Part I: the study aims to investigate startups' behaviors toward KA comparing before and after accessing ESI. In addition, the study leads to understanding behaviors involved in acquiring knowledge types, sources, methods, and frequencies.

Part II: the study aims to examine knowledge providers' behaviors toward knowledge transfer comparing before and after startups' access to ESI.

The scope of this article is restricted to the area of Part I, as presented in Figure 1. While the remaining area, Part II, has been proposed as further research as explained in Section 7.

## **MATERIALS AND METHODS**

### **Research Design**

The empirical study draws on extensive qualitative research through multiple case studies, which is often required when the research domain is broad and complex and the context is important (Dul & Hak, 2008; Yin, 2013). In addition, it is useful in new research areas or situations in which researchers know little about the phenomenon (Eisenhardt & Graebner, 2007). Thus, it is typically used to address "What," "Why," and "How" questions (Eisenhardt & Graebner, 2007; Yin, 2013) to develop the research questions as expressed in Sections 1 and 2.3. Thus, qualitative research is highly appropriate for addressing the complex topics we consider (Vanderstraetena & Matthyssens, 2012; Yin, 2013).

### **Data Collection Process**

This study collected data using the qualitative survey method with semi-structured questionnaires; moreover, 114 new ventures or startups within the same institutional environment, TBIs, were investigated and the author conducted research data collection by sending all semi-structured questionnaires through TBI managers and teams, who kindly assisted the author by conducting data collection from their startups, for all cases. When all startups returned the questionnaires to TBI managers and teams, they passed all completed data to the author by either mail or email.

### **Survey Data Analysis Method**

Research data analysis in this paper used a summative approach to qualitative content analysis starting with identifying and quantifying certain keywords or content in text with the purpose of understanding the contextual use of the words or content (Hsieh & Shannon, 2005) and traditional human coding (Conley & Tosti-Kharas, 2014; Krippendorff, 2004). Analyzing for the appearance of a particular word or content in the textual material is referred to as manifest content analysis (Potter & Levine-Donnerstein, 1999). If the analysis stopped at this point, the analysis would be quantitative, focusing on counting the frequency of specific words or content (Kondracki, Wellman, & Amundson, 2002). A summative approach to qualitative content analysis goes beyond mere word counts to include latent content analysis. Latent

content analysis refers to the process of interpretation; moreover, a summative approach to qualitative content analysis has certain advantages. It is an unobtrusive and nonreactive way to study the phenomenon of interest. It can provide basic insights into how words are actually used (Hsieh & Shannon, 2005).

### Case Selection and Description

Regarding the five cases as leading TBIs selected in Thailand, they comprise PSU (TBI of Prince of Songkla University), KKU (TBI of Khon Kaen University), SUT (TBI of Suranaree University of Technology), NSTDA (TBI of NSTDA), and STEP (TBI of Chiang Mai University). As the criteria for selecting cases as best practices of TBIs in Thailand, the author has used the criteria of success measurement of TBIs aligned with the Science Park Agency (SPA), which has been delegated by the Ministry of Science and Technology, to monitor planning and operation for all of TBIs in Thailand. Performance indicators have been used by SPA to monitor TBIs, including the number of graduates, number of incubatees, number of startup formations and survival, and so on. With regard to specific characters in each case, the purposes of all cases are to incubate technology startups' survival and all cases have focused on types of technology businesses consisting of Food, Digital, and Healthcare technologies. Besides, all cases show different numbers of startups, consisting of 24, 26, 24, 27, and 13, respectively; moreover, all cases show

numbers of graduated incubatees, namely 132, 87, 10, 141, and 1, respectively.

### Sample

The purpose live sampling method (Yin, 2013) was used with drawing on delicate firm-level data collected for a total of 114 startups, who have been incubated from 2014 to 2016, consisting of 24 samples from PSU, 26 samples from KKU, 24 samples from SUT, 27 samples from NSTDA, and 13 samples from STEP. Data collections were gathered by considering primary data with semi-structured questionnaires with the qualitative survey method. In addition, validity and reliability were tested according to Yin (2013); thus, semi-structured questionnaire lists were evaluated by three relevant experts for the index of Item Objective Congruence and the questionnaire lists were evaluated with "Pass" criteria. Besides, considering the respondent rate, a total of 114 samples of all cases (100%) valid questionnaires were returned and analyzed. All respondents were divided into each case including PSU (24 respondents), KKU (26 respondents), SUT (24 respondents), NSTDA (27 respondents), and STEP (13 respondents).

### RESULTS AND DISCUSSION

In this section, we describe and interpret through five cases with regard to Figure 1 (1) and (2) and also include a comparison of results that occurred between before and after startups' access to ESI under the discussion. All of these are expressed as follows:

According to Table 1, the survey shows results to cover research questions as identified in Sections 1 and 2.3 expressed as the following:

Regarding the first question with startups' demands toward KA before accessing ESI, the results of all cases indicate that 100% of total respondents need to acquire knowledge.

According to the second question, Table 1 expresses the results with types of knowledge that startups need to acquire before accessing ESI. The results of all cases indicate that the top three knowledge types, which have the results that more than 50% of total participants responded in each case, consist of new product development, technology management, and equipment improvement. By the results, they indicate that startups among five cases need to acquire types of technical knowledge mainly. Types of business knowledge are acquired by less than half of the total respondents.

Following the third question, knowledge sources from which startups need to acquire before accessing ESI, findings of all cases show that the top two types of knowledge sources are higher than half of total respondents consisting of search engine (results of the five cases show at 73–88%) and website (results of all cases are at 62–78%). By the results, they indicate that startups among five cases need to acquire types of knowledge sources mainly through online channels. Of other types of knowledge sources, offline channels

are acquired by less than 50% of total respondents.

In addition, the study was extended to cover two additional research questions, namely (4) and (5), which were not included in recent studies. Thus, the results are expressed as follows:

Regarding the fourth question, methods that startups need to acquire before accessing ESI, the findings of all cases show that two methods express a respondent rate higher than 50% of total respondents consisting of searching knowledge through search engines (findings of the five cases are 59–85%) and searching knowledge through websites (results of the five cases are 58–75%). The findings indicate that startups among all cases use the “searching method” mainly to access knowledge sources and to acquire knowledge that they required. Other methods are used by less than 50% of total respondents.

With regard to the last question, how often startups acquire before accessing ESI. The results of all cases show that frequency types higher than 50 percent of total respondents consisted of “one time a week” (results show at 52–61%) and “more than one time a day” (findings show at 51–59%). The findings indicate that startups of all cases act to acquire knowledge more frequently.

In a discussion regarding Table 1, the results are interpreted as follows:

First, the study found that startups, before accessing ESI, also need to acquire knowledge related to Macpherson and

**Table 1**

*Types of knowledge that startups need to acquire before accessing ESI.  
(See Supplementary Data File for details)*

CASE	Types of KA										
	Respondents	New Product Development	Technology Management	Equipment Improvement	Marketing Management	Business Plan Development	Business Model Canvas	Financial Management	Organization Management	Company Formation	Accounting Management
PSU	24	63%	54%	50%	29%	29%	29%	21%	8%	8%	4%
KKU	26	69%	56%	54%	27%	27%	27%	15%	15%	15%	4%
SUT	24	62%	54%	58%	21%	8%	21%	21%	13%	13%	8%
NSTDA	27	67%	55%	52%	22%	15%	22%	15%	22%	11%	4%
STEP	13	69%	51%	54%	31%	23%	23%	31%	23%	15%	15%

Holt (2007) and Thorpe et al. (2005), who mentioned that early-stage entrepreneurs frequently sought resources for the firm during formation and development of the business. Moreover, Studdard and Munchus (2009) mentioned that the acquisition of critical outside resources or actors became a necessary component in the formation and development of startups.

Second, most types of knowledge that startups need to acquire before accessing ESI are technical knowledge types more than business knowledge types; however, the findings imply that technology startups' behaviors need to acquire knowledge in areas of their interest related to Studdard and Munchus (2009), who mentioned that the ability to generate these resources was

accomplished through the entrepreneur's personal initiative to gather knowledge. However, this can also be implied as related to Kirchoff (1994) that human capital is limited to acquiring all types of knowledge. Similarly, Macpherson and Holt (2007), Thorpe et al. (2005), and Yli-Renko et al. (2001), also mentioned that entrepreneurs lacked the ability to generate sufficiently substantial amounts of internal know-how due to the limited human capital effect. If the entrepreneurial firm's access to actors in the social structure is limited, then the acquisition of resources for firm formation and development becomes limited. Consequently, leading to the third point, the results indicate that startups need to acquire types of knowledge sources through online

channels mostly, such as search engines and websites. These results imply that startups, before accessing ESI, lack the ability to acquire business knowledge although they can search all data online but their abilities to generate sufficient internal know-how are limited, especially acquiring business knowledge types.

In addition, the study has extended the scope to cover two additional research questions, which were not noted in recent studies reviewed and the results are interpreted as follows: regarding the fourth research question, methods that startups need to acquire before accessing ESI, the findings imply that startups among the five cases use the “searching method” mainly to access knowledge sources and this result relates to knowledge sources as in the preceding discussion. Lastly, regarding frequencies of KA, the results are interpreted that startups acquire before accessing ESI. The results are interpreted that startups act to acquire knowledge with more frequencies of KA.

Regarding Table 2, the survey shows findings to cover questions as identified in Sections 1 and 2.3 expressed as follows:

1. Regarding the first question with startups’ demand toward KA after accessing ESI, the results of all cases indicate that 100% of total respondents need to acquire knowledge the same as before accessing ESI.

2. According to the second question, Table 2 expresses the results with types of knowledge that startups need to acquire after

accessing ESI. The results of the five cases indicate that the top eight knowledge types, which express the results more than 50% of total respondents of each case, consist of business plan development, business model canvas, marketing management, finance management, new product development, packaging development, accounting management and company formation. The results show different findings when compared with the results as shown in Table 1; on the other hand, they indicate that startups, after accessing ESI, mostly need to acquire business knowledge types, while types of technical knowledge are acquired less than half of total participants responded in each case.

3. Following the third question, knowledge sources from which startups need to acquire after accessing ESI, the findings of all cases show that the top two types of knowledge sources are higher than half of total respondents consisted of Business Experts (results of all cases show at 79–93%), TBI Manager and Teams (results of all cases show at 58–70%), Search Engine (results of all cases show at 55–79%), and Technical Experts (results of all cases show at 50–69%). The results indicate that startups among the five cases tend to acquire knowledge from knowledge sources through both offline and online channels, especially, startups acquire knowledge with critical offline channels that consisted of business experts, TBI managers and teams; however, technical experts are still acquired as one of the vital knowledge sources. The online

channel, search engine, is still selected as one of the key knowledge sources. Nevertheless, the remaining knowledge sources are acquired by less than 50% of total respondents in each case.

In addition, the study was expanded to cover two additional research questions, consisting of (4) and (5), which were not found from reviewing recent studies. The results are expressed as follows:

4. Regarding the fourth question, methods that startups need to acquire after accessing ESI, the findings of all cases show three methods that startups use to acquire knowledge that express a respondent rate higher than 50% of total respondents consisted of "Advice from business experts" (findings of all cases show at 69–74%) "Advice from TBI managers and teams" (results of the five cases show at 65–70%), "Advice from technical experts" (results of all cases show at 50–69%), and "Searching knowledge from search engine" (results of all cases show at 50–62%). By the findings, they indicate that startups among the five cases use methods related to different knowledge sources, such as using advice in cases of offline channels as knowledge sources and using the searching method in the case of online channels as knowledge sources. Other methods are used by less than 50% of total respondents in each case.

5. With regard to the last extended question, how often startups acquire before accessing ESI. The findings of all cases indicate that frequency types higher than 50% of total respondents consisted of "more than one time a day" (findings show at

51–64%), "one time a day" (results express at 54–71%), and "one time a week" (results express at 51–61%). These findings indicate that startups after accessing ESI among the five cases behave to acquire knowledge more frequently than before accessing ESI.

Regarding Table 2, the survey results are expressed as follows:

First, most types of knowledge that startups need to acquire after accessing ESI are business knowledge types more than technical knowledge types; similarly, findings associated with recent studies; for example, Kazanjian (1988) found that types of knowledge required during formation and development divided into categories including general management, financial management, marketing and selling, market research, product R&D, engineering, production, distribution, legal affairs, and personnel. In addition, these functional categories, needed for firm formation and development, contain knowledge resources that categorized them into technological and general business knowledge bases. However, "Pre-business plan and business model development" are the critical skills mostly acquired by the startups; therefore, this implies that some of the business knowledge types found in our study differed from findings revealed by recent studies and this led to contributing to improving TBIs' KM systems.

Second, regarding discussion of knowledge sources, the results indicate that startups among the five cases tend to acquire knowledge from knowledge sources through both offline and online channels, especially,

Table 2  
Types of knowledge that startups need to acquire after accessing ESI (See Supplementary Data File for details)

CASE	Types of KA															
	Respondents	Business Plan Development	Business Model Canvas	Marketing Management	Financial Management	New Product Development	Packaging Design	Accounting Management	Company Formation	Quality System Development	Manufacturing Management	Intellectual Property	Equipment Improvement	Factory System Design	New Technology Development	
PSU	24	79%	79%	75%	54%	53%	57%	51%	53%	8%	8%	4%	4%	4%	4%	4%
KKU	26	69%	69%	77%	58%	50%	55%	55%	50%	8%	8%	4%	4%	4%	4%	4%
SUT	24	83%	83%	79%	67%	58%	56%	52%	58%	8%	8%	33%	29%	4%	8%	8%
NSTDA	27	74%	78%	78%	63%	53%	59%	56%	53%	7%	7%	7%	4%	7%	7%	7%
STEP	13	77%	77%	69%	58%	62%	54%	53%	53%	15%	8%	31%	23%	8%	8%	8%

startups acquire knowledge with critical offline channels consisting of business experts, TBI managers and teams; however, even technical experts are still acquired as a vital knowledge source, which relates to Peters et al. (2004), who mentioned that sources for acquiring the resources came from the networks available to the firms; moreover, the significant outcome gained by the firms in the incubation process is KA through the interaction with the business incubator manager, whose main role is to assist the firm with the ability to acquire knowledge and the results also associate to Hansson (2007), who mentioned that the incubator manager, if unable to contribute knowledge directly, did possess the ability to link the firm with other actors in and outside the social structure of the incubator.

In addition, the study has expanded to cover two additional research questions and further studied to investigate new issues of the study which were not covered by recent studies reviewed and results are interpreted as follows: Third, results are interpreted that startups use methods related to different knowledge sources by using both offline and online channels; however, the results are different when compared with methods used before accessing ESI. Finally, the results are interpreted with frequency types and indicate that startups after accessing ESI in the five cases behave to acquire knowledge more frequently than before accessing ESI.

## CONCLUSION

In summary, findings were summarized through the five cases with regard to Table

1 and Table 2. All these are concluded to relevant research questions of the study expressed as follows:

First, according to Table 1, the survey shows results to cover questions involving startups' behaviors toward KA before accessing ESI are summarized as follows: all cases indicate that 100% of total respondents need to acquire knowledge mainly with types of technical knowledge. Results of all cases with knowledge sources indicate that startups need to acquire types of knowledge sources mainly through the online channel. However, the study has been extended to cover two additional questions that were not covered by recent studies and the results show the top two methods used for KA consisted of using "search engines" and searching knowledge through websites. The findings of all cases are interpreted that startups behave to acquire knowledge with more frequencies of KA.

Second, regarding Table 1, the survey shows findings to cover questions as identified in Sections 1 and 2.3 expressed as follows: startups' demands toward KA after accessing ESI, the results of all cases indicate that 100% of total respondents need to acquire knowledge the same as before accessing ESI. Moreover, all cases indicate that startups, after accessing ESI, mostly need to acquire business knowledge types. In addition, findings of all cases show that startups tend to acquire knowledge from knowledge sources through both offline and online channels. Besides, the study was extended to cover two additional research questions that were not covered in recent

studies. The results are expressed as follows: first, regarding the methods, the findings of all cases indicate that startups use methods related to different knowledge sources, such as using advice in cases of offline channels as knowledge sources and using the searching method in the case of online channels as knowledge sources. Lastly, the findings of all cases indicate startups after accessing ESI behave to acquire knowledge more frequently than before accessing ESI.

### **IMPLICATIONS FOR THEORY AND PRACTICE**

The findings contribute to TBIs at ESI and knowledge-based research in two vital ways. First, findings contribute new knowledge to startups' behaviors toward KA that occurred at ESI of leading TBIs in the Thai context because recent studies involving ESI of TBIs are still limited. Lastly, regarding the practical view, results contribute usefulness among TBIs' relevant stakeholders consisting of TBI managers and teams, business experts, technical experts, startups, government, or relevant others, to make all of them understand how to improve KA, which is one of the critical elements and also a weakness under ESI of TBIs in Thailand. All these are critical learning to develop the TBI system to be more effective and to increase startups' survival related to current Thai government's policies known as "Thailand 4.0."

### **LIMITATIONS AND FURTHER RESEARCH DIRECTIONS**

The study focused on examining only startup perspectives, as Figure 1 identified, while the study was not designed to investigate perspectives of knowledge providers and startups' perceptions toward knowledge transferred by knowledge providers. Besides, a summative approach is selected as methodology led to findings from the study limited by the inattention to the broader meanings present in the data. As evidence of trustworthiness, this type of study relies on credibility. A mechanism to demonstrate credibility is to show that the textual evidence is consistent with the interpretation (Hsieh & Shannon, 2005). Consequently, the study could extend the opportunity for further research work by using mixing method or triangulation method (Glaser & Strauss, 2017; Jick, 1979) to develop more confidence in the results because "within-method" triangulation essentially involves cross-checking for internal consistency while "between-method" triangulation tests the degree of external validity. Moreover, the study could extend the scope of study into types of incubators other than TBIs.

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## **Green Office Management Standard in Mahidol University, Thailand**

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### **ABSTRACT**

Green Office is an environmental service for offices and in the recent decades, there is a growing concern about the green office management standard in Thailand with its goal as to create a healthy environment, conserve energy, and reduce pollution by reducing carbon dioxide emissions and offices' ecological footprint. With its help, workplaces are able to reduce their burden on the environment, achieve savings and slow down climate change. It is a practical environmental management system for the offices applicable both in a small or large organization, in private companies or the public sector, easy to implement in urban environments and which help in reducing the ecological footprint and greenhouse gas emissions of the office. This paper describes the purpose, principles, features, procedure for setting up, and management of green office standard in Thailand with the main aim of describing the growing importance of green office due to the impact of climate change. It also aims to promote sustainable practices, apply the Green Office principles in organizations and offices so as to reduce the emission released by activities in the offices. The study was carried out through EDFR procedure by selecting a panel of 17 experts to get the detail data and opinion for management of green office in Thailand. The study results or contributes to the rationalization and mitigation of climate change through following the adaptive green office strategies and it brings out the importance of human factors and behavioral practices at workplaces and offices.

*Keywords:* Behavioral practices, EDFR, environmental management, green office, workplace

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### **INTRODUCTION**

Green Office is a global concept developed and managed by WWF Finland (2016). The term "Green Office" refers to the mentality and practices that help to reduce the environmental impact of our office activities and to make a real difference in

the environment. Green Office is a practical environmental service or program for offices, easy to implement with a structure that is environmentally responsible and resource-efficient as defined by the United States of America Environmental Agency. The goal of green office is to create a healthy environment, conserve energy and reduce pollution. With its help, workplaces will be able to reduce their burden on the environment, achieve savings and slow down climate change. The basic principle of the Green Office initiative is to promote continuous improvements in the environmental work and results of the involved organizations, reducing the environmental impacts of office work in order to reduce carbon dioxide emissions and offices' ecological footprint and greenhouse gas emissions due to its practical environmental management system applicable in offices both in a small or large organization, in private companies or the public sector. The Green Office initiative inspires employees to adopt environmentally sound habits and leads to high staff motivation. The Green Office logo, provided for certified Green Offices, helps communicate an organization's environmental work to staff, stakeholders and customers (WWF Finland, 2016).

Office premises occupy a key position in energy consumption and in sustainable solutions. Green Office motivates office staff to act in an environmentally friendly way with regard to everyday tasks, and improves environmental awareness and brings cost savings. Following green office

standard will benefit both the organization and the environment (WWF-Pakistan, 2016).

The basic principle of the Green Office initiatives is to promote continuous improvements in the environmental working and results of the involved organizations, inspire employees to adopt environmentally sound habits and leads to high staff motivation in order to reduce the environmental impacts of office work (WWF, 2010). The following gives the *main features* of green office as:

#### **Green Office and Reduction in Energy Consumption**

Several activities from using advanced IT solutions to switching off unnecessary lights help to cut down electricity consumption along with use of renewable energy sources (WWF, 2016).

#### **Green Office and Reduction in Transportation**

Most business also required some traveling, but sustainable organizations having green office aims to cut down unnecessary transportation with the help of better solutions such as using phone and video conferences and reduction in air transport could help for distance working and emissions in carbon dioxide to improve environmental situation.

#### **Green Office and Reduction in Paper Consumption**

As the paper production has a large ecological footprint, it affects the future of

the world's forest, endangered species, water resources, climate and people. Reduction in its use saves its impact on the ecology.

### **Green Office and Reduction in Water Consumption**

Water footprint of human consumption has exceeded sustainable levels in several areas around the world recently. This makes it crucial to reduce both direct and indirect water usage through the practice of green office at work.

### **Green Office and Avoiding Waste Generation**

Even though, in 2010, the Green Offices did not manage to cut down their waste generation, the amount of waste per employee in the Green Offices decreased by 17.5% in 2010 (information received from 39 offices (WWF, 2016).

The impacts of climate changes in the Earth's environmental system include unpredictable and chaotic weather, rising temperatures, rise in sea levels, mass extinction of wild animal and life of human beings at risk due to drought, flood, deforestation and threats to agriculture due to deforestation and poor agricultural prospects (WWF, 2010). The most recent report of the Intergovernmental Panel on Climate Change (IPCC, 2014) concludes that human beings influence climate change and the changes can be mitigated through the changes in ways of the behavior in the daily life style and at work of human beings. Green Office is one of the ways that people can effectively mitigate the impact

of climate change in their daily lives and work. It also inspires new routines, which have an incalculable as new and more sustainable behaviors. To achieve it, the first step is to launch green building policy as a requirement of sustainable development, including environmental, economic, and social benefits (Holmes & Hacker, 2007; IPCC, 2007; Peia, Lina, Liua, & Zhua,, 2015; Urge-Vorsatz, Harvey, Mirasgedis, & Levine, 2007). Studies have found a preference bias for "environmentally friendly" or "green" artifacts and buildings (Holmgren, Kabanshi, & Sörqvist, 2017). In order to maintain green building, the following steps should be taken care of as: *Decoration, Cleaning, Maintenance, Office space feeling, Light Environment (Lighting), Sound Environment (Acoustic environment), Office layout, Thermal comfort and Indoor air quality* (World Green Building Council, 2016).

### **Background and Development of Green Office in Thailand**

The green office in Thailand came into existence in the Faculty of Environment and Resource Studies, Mahidol University since 1983 (Mahidol University, 2016). It aims at promoting behavioral change in the office so as to reduce energy consumption while promoting activities that are environmentally friendly, such as reducing the amount of waste by reducing, recycling, reusing, and prohibition of using hazardous goods that are environmentally dangerous. The process of recruitment and operations of the green office passes through

many stages such as training, meeting, assessment, and recruitment of responsible officers. The Department of Environmental Quality Promotion has provided the detailed rules and support for participating in the 2017 “Green Office” program. The program encourages environmental awareness among business operators. The program aims to change the behavior of businesses to reduce energy consumption and engage in environmentally friendly practices, such as reducing waste, avoiding the use of hazardous chemicals, and procuring materials that are environmentally friendly (Pornpimol, 2016). Businesses that are certified by the department of environmental quality as “Green Offices” will receive a certificate of excellence and a gold medal. Since 2015, the program has awarded certifications to 184 businesses (Pantana & Gershon, 2017).

## METHODS

The present study was carried out by the researcher of Mahidol University, Faculty of Environment and Resource studies in collaboration with Department of Environmental Quality Promotion. In March 2015, there was training of participating officers of green office, followed by training of committee auditor in April 2015. During May to June operational data of participating green offices in Thailand were collected along with auditing of each office in order to check the criteria of certification and registrations for the following year. The preliminary assessment report was sent to the Department of Environmental Quality

on February 10, 2016. The study focused on the choice of materials, office supplies, and equipment that are environmentally friendly along with the significant reduction of greenhouse gas emissions.

The present study used Ethnographic Delphi Future Research (EDFR) methodology for collecting data from a panel of 17 experts in different professions and organizations in Thailand. Ethnography is defined as “Fieldwork conducted by a single investigator who lives with and lives like those who are studied, usually for a year or more” (Van Maanen, 1996). It includes employing field research, whereby a researcher stays in the field in order to be able to observe the subjects of interest in their natural setting, and to be able to report facts about what they have observed (Genzuk, 1999; Hammersley, 1998). On the other hand, the main objective of the Delphi method is to obtain reliable data from a panel of experts (Dalkey & Helmer, 1963). This is achieved by allowing a group of experts to tackle a complex problem. It is almost similar to a traditional survey, except that it is stronger because instead of using a sampling technique to represent a certain population, a group of experts and stakeholders with a deep understanding of the subjects are chosen to answer the questionnaire. *EDFR Method* is a combination of ethnography and Delphi studies. The present study was conducted in the following manner: The researcher used explicit criteria to select a panel of 17 experts and designed a well-structured questionnaire concerning the issue under consideration. Panelists were

then asked to respond to the questionnaire during a series of rounds. All responses are provided individually and anonymously. Questionnaires were administered through e mail as well as by hand, and panelists were unaware of each other's identity and interact only with the researcher or small research group (two to four members).

Delbecq and Van de Ven (1971) had come up with detailed guidelines on how to select the group of experts suitable for the Delphi study. The first step is to structure the experts into different panels, such as academics, practitioners, and government officials. This is because of an assumption that these will have different perspectives. Therefore dividing these experts into panels will allow a chance for comparing these perspectives (Okoli & Pawlowski, 2004). The researchers contacted the experts and explained them about the study subject and asked them to complete a questionnaire. After the responses were received, the researcher administered the questionnaire by narrowing down the original list with all answers to a list with the most important answers. The data were then analyzed quantitatively in order to determine the ranks of the items on the list.

### Objectives

The objectives of having green office management standard of Thailand are as follows:

- to apply the Green Office principles in organization and offices so as to reduce the consumption of natural resources by improving offices' environmental efficiency;
- to promote sustainable practices by increasing environmental awareness of employees;
- to promote climate change mitigation by requiring energy-saving and use of renewable energy source;
- to promote to reuse and recycle in the office so as to help and save office expenditures;
- to reduce the emission released by activities in the offices (Department of Environmental Quality Promotion [DEQP] and Mahidol University, Green Office, 2016).

The article of green office standard in Thailand is divided into the following parts as: *Introduction, Methods, Results and Discussion, and Conclusions*.

### RESULTS AND DISCUSSION

The results of the study of Green Office Management in Thailand are discussed in the following topics: 1. Organization Management; 2. Green Office and Organization Awareness; 3. Energy and Resource; 4. Waste and Waste Water Management; 5. Indoor & Outdoor Environmental; 6. Green Procurement; 7. Continual Improvement (Department of Environmental Quality Promotion [DEQP] and Mahidol University, Green Office, 2016).

The score is given by the auditing committee. The offices or organizations are invited to join the project for getting

green office standard certification. Then, the auditing committee visited the participating offices on a fix date and time for evaluation and to give score to each category. Finally, the data were converted to percentage and presented into figures 1 using Microsoft Excel Program.

The following figure gives the distribution of qualified green office by the average weight of the green office group, classified in terms as gold, silver and bronze levels.

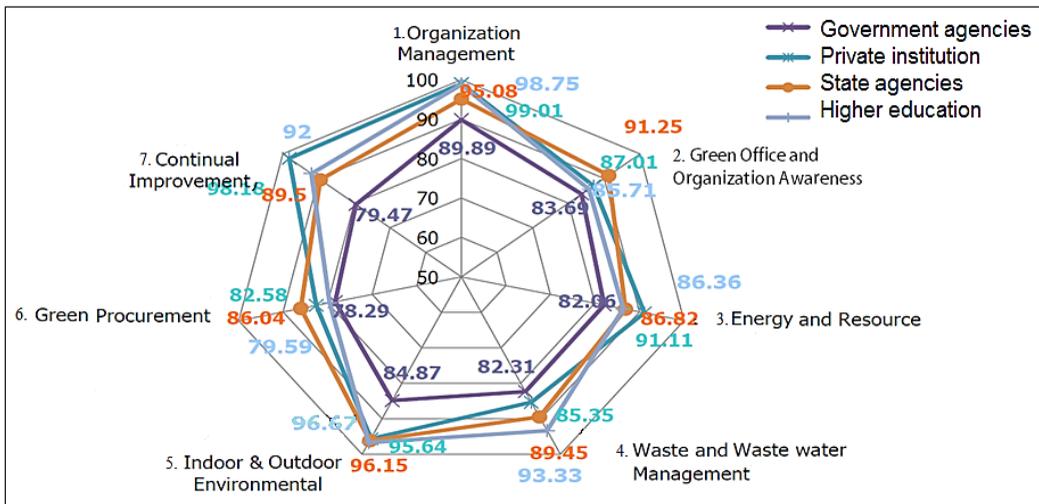


Figure 1. Distribution of environmental management by division of the average weight of organizations

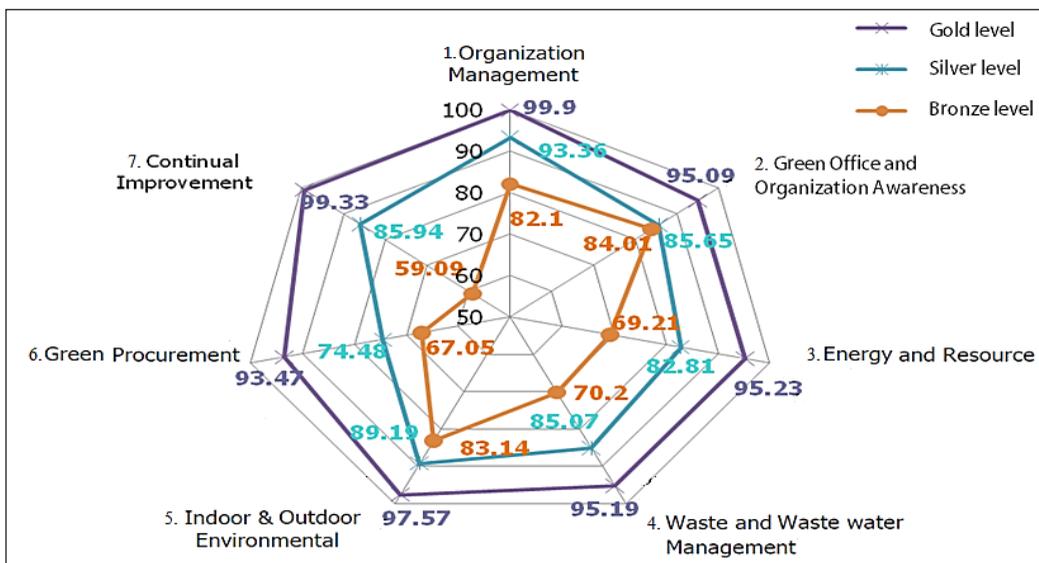


Figure 2: Distribution of qualified green office by the average weight

### **Organization Management of Green Offices in Thailand**

Regarding the management of green offices in Thailand, it uses the concept of ISO14001 environmental management system to manage greenhouse gas emissions, procurement of environmentally friendly, reducing waste (waste minimization), environmental protection (pollution prevention) primarily in the direction of environmental management within the office system (Department of Environmental Quality Promotion [DEQP] and Mahidol University, Green Office, 2016). The green office organization management consists of Environmental Policy and Planned Operations

**Environmental Policy.** Environmental policy is established by the Executive Office for the implementation of environmental management according to the guidelines of the Department of Environmental Quality. A good environmental policy must be clear and easy to explain to employees in the office and for the general interest of all concerned parties. In addition, it should show a commitment to continuous improvement and pollution prevention, as whenever appropriate such as policy for wastewater recycling and reuse, the use of raw materials that are environmentally friendly, reducing or controlling pollution to a minimum and the use of resources and energy efficiently. The organization must raise awareness of environmental issues

by informing and training employees to better understand and comply with the environmental policy.

**Planned Operations.** The green office organization management should operate in a way that it should show a commitment to the employees to follow the law and the criteria for the green office of the Department of Environmental Quality. Public relations should announce the workshop or conference or other publicity through the website of the company or organization. The policy document should be distributed to each department and so on. The operation of green office should enable to identify and assess environmental problems and resource use. The *first procedure* is collecting data in order to find out the activity indicator front of the entire office and responsibility assignment for each department or activity of a particular area. The *second procedure* is: Identification of environmental problems and the use of resources and energy while the *third procedure* is environmental communication and training regarding the operation of green office. It is important to clarify information, news and data exchange at each level of the organization. It needs the realization and cooperation of the staffs and executives in environmental management office along with an open channel to receive complaints or for communication. So, the environmental policy must be reviewed annually.

Table 1 gives the rating guidelines for the certification of environmental management.

In 2015, altogether 82 offices registered for the certification of Green Office

Certification Project. Out of this, 69 passed in the initial screening test. In the final auditing for certification test, 52 offices have qualified as Certified Green Office.

Table 1  
*Rating guidelines for green office standard and certification*

Score	Statements/Remarks
0	No skill in management and operational conditions. Not following guidelines on environmental management. No laws and other regulations related to the environment. No documents or records that are used to control the operation. The persons concerned have no knowledge or ability to manage the environment
0.25	Partly fair with regard to organizational management, environmental care and operational level Partly fair with respect to environmental management Partly compliance with legal and other requirements related to environmental management Somewhat fair relating to document or record that is used to control the operation. Partly fair of the person concerned with regard to knowledge and ability to manage the environment
0.50	Moderate in environmental care and operational conditions. Moderate in compliance with legal and other requirements related to environmental as well as office management. Moderate in record keeping and related document used to control the operation. The person concerned had moderate knowledge and ability to manage the environment.
0.75	Good in environmental management and operating condition Good to some extent in compliance with legal and other requirements related to environmental as well office management. The person concerned who managed had good knowledge and ability to manage the environment.
1.0	Very good and perfect in environmental management, care and operational conditions. Very good in compliance with legal and other requirements related to the environment. Very good in office record keeping and related documents used to control the operation The person concerned who managed had very good knowledge and ability to manage the environment.

Table 2  
*The assessment and auditing results of the green office certification (2015)*

The evaluation criteria	Scores	Assessment of	Percentage
Gold	90+	30	50.85
Silver	80-89	18	30.51
Copper	60-79	11	18.64
Unqualified	- 60	0	0
Total		59	100

*Note:* The Office participated in 2014 and obtained a new year assessment in 2015.

### Green Office and Organization Awareness

Green office and organization awareness can be done through environmental communication and training, conferences and exhibitions, cleanliness and order in the office, greenhouse gas management, transportation and travel. Communication can be in different ways such as bulletin boards (e.g., environmental policy, environment news, and environmental responsibility), training (Morning talk), and meeting to clarify the operation. Training on raising awareness and control of environmental problems and the employees involved is important. Employees must have a deep understanding of the training and experience. Awareness in an office regarding green office set up can be through conferences, green marketing and green

exhibition. The conference, seminar and exhibition provide guidelines taking into account the principle of sustainability and to reduce the environmental impact caused by greenhouse gas and other pollution. The guidelines take into account the principle of reducing resources, energy savings, friendly and balanced ecology in the environment, and so on. Cleanliness and order in the office is important on the basis of quality, environmental awareness, and safety measures in the office. Cleanliness contributes to the orderly, beauty, and it enhances employee awareness of the partnership and to help each other. It also helps to increase performance of employees as well as to create a good image of the office. Figure 3 shows the office employees cooperation to maintain a clean and tidy office.



Figure 3. Office employees cooperating to maintain a clean and tidy office

It is important to make the employees aware of self-help in office management. There should be plan and check-up of every office rooms such as the condition of the bathroom, office room, and other premises. Office workers should be encouraged to spare 15 minutes of their time early morning

every day in cleaning and arranging room for maintaining cleanliness. To be a certified green office, it needs to be checked in a written form whether all office rooms, bathroom, materials and other infrastructures are neat, clean and in an orderly manner. Another issue is greenhouse gas that is a

major cause of rising global temperatures and these are emitted from the use of energy resources and waste from work activity in the office. If no steps are taken to reduce

the emission of greenhouse gas, the problem will accelerate from bad into even more severe. Therefore, many operations aim to reduce greenhouse gas emissions.

Table 3  
*The distribution of sample calculation report of monthly emission*

Item	Unit volume/month	Emission factor ( Kg CO <sub>2</sub> )	Emission volume/ month
Paper	10 kg	0.735	7.35 kg CO <sub>2</sub>
Electricity	KWh	0.5813	58.1 kg CO <sub>2</sub>
Waste food	kg	2.5300	12.65 kg CO <sub>2</sub>

Greenhouse gas emissions should be calculated on a monthly basis and it varies according to the number of employees. It is important to compare the trends in greenhouse gas emissions that will provide a measure to conserve resources and energy as well as reducing the amount of waste. The trend of greenhouse gas emissions must be reported to the executives, including senior executives to make them aware and acknowledge. In addition, it is important for all employees to be communicated and informed by the managers so as to encourage the staffs to realize the importance to work together for reducing greenhouse gases.

Unnecessary travel leads to greenhouse gas emission and more fuel energy consumption and hence it should be avoided. It is important to encourage employees to participate in the organization to help reduce unnecessary travel, such as communicate by phone, video conferencing or contact via e-mail or facilitate the travel of public transportation, including trains and so on instead of private and encouraging usage of public transport. In addition, the engine

should be turned off when the car is parked for a long time, tire pressure should be checked regularly and alternative fuel as biofuels, biodiesel, or ethanol should be used.

### **Energy and Resource Utilization**

The main mission of the green office in Thailand is to improve and conserve the environment, and to optimize the use of resources to reduce pollution and waste. Most offices are accountable for the use of water resources, energy resources, and other resources. The economical use of these resources and energy will be able to cultivate appreciation and control office expenditures thereby resulting to maximize economy and benefits to the society at large. The green office in Thailand strive to implement various green housekeeping measures in daily office operations with a view to maintaining a green workplace and setting a good example for other departments. The main focus of the green office management is reducing on energy, water and paper consumption and other

resources so as to cultivate appreciation and controlled economy. The use of energy and resources must be identified and evaluated to the table to identify and assess environmental problems. The management review is an essential part of the energy and resource management. To identify and assess environmental problems and resource use, the first step is collecting data on:

1. Activity indicator in front of the entire office.
2. Responsibility assignment for each department or activity of the area.

The second step is to identify the related environmental problems due to the continuous use of energy and other resources in the office. A survey on environmental issue can be seen in the form of Table 4 and 5 on a survey on environmental issues.

In response to the aims of the Green office and Environment, the office management in Thailand has exerted great effort in promoting and encouraging staff cooperation in electricity saving. Green Office of Mahidol University organized energy saving campaign - Light out. Staff members were encouraged to save energy in unnecessary power consumption on computer use, lightening, printing, and excessive air-conditioning. Posters were designed to appeal for staff cooperation. Next is to bring awareness to all employees on the use of water resource and their duties to maintain a clean environment with little use of resources. Finally is management on paper consumption and other resources. Paper, ink, printing equipment, stationery and office equipment are resources vital to the activities of the office. Most importantly,

Table 4  
*Survey on environmental issues*

<b>Input</b>	<b>Activity Process</b>	<b>Output</b>
Paper	Office process and printing	Used paper
Ink	Printing	Ink for printer
Electricity	Printing, cooling, lightening, and computer use	Used in printing, AC, refrigeration, computer
Water	Drinking and cleaning	Waste water
Cleanser	Cleaning of toilet	Dust, debris

Table 5  
*The environmental assessment on the use of resources and energy in order to understand the significance of the issue*

<b>Environmental problems</b>	<b>Significantly low</b>	<b>Significantly medium</b>	<b>Significantly high</b>
Direct pollution	24–48	49–72	+72
Indirect pollution	28–56	57–84	+84
Direct resource usage	12–30	37–60	+60
Indirect resource usage	13–45	46–75	+75

*Source:* Green Office, Mahidol University, Faculty of Environment and Resource Studies.

the use of large quantities each day of these resources must be taken care of in order to reduce wastage from such actions. Over the past few years due to the advocacy of environmental conservation, staff awareness on paper saving has been highly enhanced and staff members have developed good practices by adopting the green office initiatives as using recycled paper in office operations, printing and photocopying on both sides of paper, reusing single-side used paper for drafting, printing and receiving fax, avoiding printing or photocopying documents unless hard copy is absolutely necessary, distributing softcopies by emails, diskettes or CD-ROMs instead of print-outs, sharing office equipment such as scissors, a cutter, a stapler, and so on.

### **Office Waste Management**

To solve the environmental problems and to be certified as a green office, green office organizations have pledged to adopt office waste management measures as: the sight of garbage bins should be made clear with a well-written note or display and it should be placed in a designated spot, all trash should be placed in a convenient area and it should be covered with a lid, the waste materials should be specified whether it is general, hazardous, recyclable or re-useable replacement equipment and kept accordingly in the office, the monthly amount of garbage should be recorded and if hazardous waste, there should be a sign to take caution and there must be a legal disposal. There should be a smear campaign about waste management. Sewage

problem in most offices is similar to waste from households. Water containing waste from washing, cleaning, cooking, and excreta that contaminate organic matter may be a pathogen that could spread into the environment. So, the wastewater should be treated before being released into the environment.

### **Indoor and Outdoor Environmental**

The office building with intense impurities and used for a prolonged duration may cause harm to the health of the office occupants infected with disease or getting sick with buildings syndrome caused by presence of bacteria, mold compounds VOCs (volatile organic compounds) and pollution in the office decor paint, carpet, wall, and so on. Thus, the office weather needs to be purified so as to be free from pollution with fresh air so that the atmosphere in the office is fresh, congenial, and healthy for the staff to work in. To maintain a pollution-free atmosphere, the following steps need to be taken care of as: routine cleaning of air conditioner to reduce the pathway of disease, periodic maintenance and renovation of construction and office building, a certified green products should be used for painting the walls or other furniture of the office, ventilation of the room along with regular cleaning with baking soda is essential to reduce odor in the room.

In order to control air pollution outside the environment, tall trees such as Pine Pradipat should be planted to help trap dust that can come into the office, complaints should be made to the contractor to

control dust particles that come into the office. Along with this, needs training and communications of staffs so that they acknowledge the issues of environmental pollution.

Bioremediation technique should be used in the green office as it is a waste management technique that involves the use of organisms to remove or neutralize pollutants from a contaminated site. Finally, there should be plantation of ferns as *Dieffenbachia* *Dracaena* in order to purify the air and measures to control air pollution within the office should be clearly written along with posting of communication campaign at various points in the office as a sign to stop smoking in the office area and employees must adhere strictly to the rules or pay penalty for disobedience.

In order to be a green office, the office should be managed to provide adequate lighting in the office premises. In addition, there should be periodic checking of the office lightening equipment such as lamps, switch, tube, plug, wiring, and sockets. Dust and mites from old lamps should be cleaned from time to time so that the panels reflect light evenly. If the room is dark or there is sufficient lightening for office work, it will affect the eyes of the employees. Therefore, measures should be taken up to provide brightness in the room by improving or installing additional lights. To illuminate more in the office at work, the height of the bulb should be reduced. Walls, ceiling lamp, and other space should be cleaned. At the time of buying office lightening equipment, there should be selection that has the high

efficiency, energy saving, environmentally friendly, and a certified brand.

The office should be managed to have a congenial working condition with no loud noise in the office's and nearby surrounding Noise caused by the work could be controlled by using sound proof. Noise within the office such as printer can be managed by maintaining the printer regularly or purchase a printer that is quiet or noiseless. In the case of noise produced by a construction site office, there should be complaints to the contractor to assist in the control of noise into the office or request them to work at night. In order to have a green office, the office environment at work should be convenient, spacious, clean and proper, such as increasing green space and controlling infected animals as birds, mice, cockroaches, etc. This will help to make the work area clean and free from infection for having a clean, congenial atmosphere, and comfortable work place.

### **Green Procurement**

Green Purchasing means purchasing or hiring products or services having regard to the appropriate quality, price, delivery of the product or service as scheduled to reduce environmental impact. Environment friendly products mean products that have less harmful impact to the environment when compared to other products. From the environmental label products, selection should be environmentally friendly products available in the market, which provide environmental information of the product to the consumers. Thailand has used the word

“Green Label” instead of “environmental label”. Green label or Eco-label is a label that shows the product quality having less environmental impact as compared to other products that do not have this label (<http://www.tei.or.th/greenlabel/about.html>).

To be a green office, it is important to purchase office equipment such as recyclable laser printer toner cartridges and box files made of recycled paper, photocopiers,

and printers with energy efficiency label. Unnecessary packaging is discouraged in support of environmental conservation. Responsible person should check whether the product is environmentally friendly (Green Label Thailand, 2017).

The following are some examples of product labels that are environmentally friendly as shown in Figure 4.



Figure 4. Examples of product labels that are environmentally friendly

### Continual Improvement through Environmental Projects

As a mechanism to resolve problems and improve environmental effectiveness, efficiency and sustainability, the office is necessary to prepare environmental projects to indicate attention and raise awareness on environmental issues that occurs in an office. A good project can solve the problems of the office or agency. For this purpose, details of ongoing projects should have practical and consistent relationship with the master plan of the office. It should maintain correct and true information that has been carefully analyzed along with the support from the management side. In particular, the necessary resources to be maintained or recorded are as follows:

- Period in the course such the start and end dates.
- Accessibility.
- The results should be sustainable.
- The project format should identify the problems in the area or in the office, the cause or causes of the problem, the purpose of the project, the target, scope of activities, areas, and importance.
- The benefits expected to be derived from the project.
- How to proceed the project carefully.
- Financial analysis (if applicable).
- Payback period
- Profit (Benefit– Cost Analysis).
- Plan (Gant chart or Timeline).
- Procedures

## CONCLUSION

Green Office is a program operated by WWF Finland that aims to offer offices a simplified environmental management and certification system, with a special focus on CO<sub>2</sub> emissions. The main objective and goal of the study is to bring awareness of the growing importance of green office management standard and is thus to apply the Green Office principles in organization and offices so as to reduce the consumption of natural resources by improving offices' environmental efficiency. The study has highlighted how green office practices can be promoted in the offices and the benefits of having green office standard in the office. With this, it will help to promote green office in the work places through behavioral changes and human resources management practices in order to combat climate change through energy efficiency and renewable, reduce natural resource use, and promote sustainable lifestyles through enhanced employee awareness.

The green office certification in Thailand's target group includes office facilities in Thailand that wish to improve their environmental management. Currently, 52 offices in different organizations have been qualified as Certified Green Office in Thailand. The study of Green Office in Thailand aims to bring awareness of the office certification or standard, which provides participants with information about how to achieve energy and environmental savings, and provides their stakeholders with information about which offices can be considered "green," that is, good partners

to co-operate with or attractive employers to work for. Arguments for offices to adopt the system include environmental benefits, cost savings, increased staff motivation and enhanced reputation of the certified organizations. In order to obtain a certified green office standard in Thailand, the following practices should be adopted as: office staff and management need behavioral changes, should be responsible for the Green Office management, set up an environmental program through environmental communication and training. Finally, it can be concluded that green office management standardization will help to promote sustainable environmental practices such as recycle waste, reduce CO<sub>2</sub> emissions, by making an increasing environmental awareness, communication, behavioral practices, and commitment to the employees.

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## **Profiling Children as Consumers: An Indian Study**

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### **ABSTRACT**

The empirical paper entitled “Profiling Children as Consumers: An Indian Study” is focused on the varied aspects that characterize a young consumer’s role in family decision-making process. Through different variables: child’s involvement at various buying stages, product type and various tactics used by children, distinct consumer profiling of young children is attempted. Survey data collected from 10 schools in India were examined with a series of factor analysis and mean scores. In this scope it is important to draw the commercial profile of young kids. Detailed analysis included principal component factor analysis, ranking through descriptive analysis and with the help of radar diagram; children’s consumer profiles are identified. Using these profiles, the firms can develop insights about their target markets and formulate effective marketing strategies. The implications are very insightful. The developmental stages of children and their distinct characteristics (as a very active participant and influencer in family buying) will enable researchers to inquire them more thoroughly. From an academic perspective, a latest field of research is unwrapped to be explored.

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### **INTRODUCTION**

Consumer behavior is getting increasingly complex. In order to deal with the new market environment, companies no longer aim solely to maximize profits. Instead, they are managing their relationships with their customers to generate benefits for both customer and company. Understanding

one's consumers / customers is the secret of successful marketing. Firms find it easier to provide effective marketing when they know more about their existing or prospective consumers. With this aim, the study attempts to successfully profile young children based on child's socialization, involvement at various buying stages, product type and how children influence parents.

## LITERATURE REVIEW

As the world is changing into a more informed, overloaded with information and capable of doing things at a click of mouse, the behavioral changes, and societal changes are also providing researchers a new platform to study. The changes in the pattern of family; growing single parent and extended families (same sex marriages), higher per capita income, reducing birth rates makes the case of studying young kids very important. Children's direct and indirect market is growing very fast. With huge amount of money at stake, there is a need to study children's consumer behavior. Children are considered to be powerful influencers of their parents' consumption as well as consumers with a considerable direct consumption of their own (Andersen, Tufte, Rasamussen, & Chan, 2008; Chaudhary, 2015). According to Caruana and Vassallo, (2003), 43 % of the total family buying is influenced by children.

### Children's Consumer Socialization

Children's influence on family purchase is directly dependent on the cultural environment of the family and the individual

(Guner, Yurt, Kaplan, & Delen, 2009). According to Haynes, Burts, Dukes and Cloud (1993), the socialization agents for children can be attributed to the cognitive factors and the environmental factors (Haynes et al., 1993). Cognitive factors are age and gender related. Environmental factors: family, media and peers. Parents have been identified as a primary source of socialization (Chaudhary & Gupta, 2014; Moschis & Churchill, 1978; Sharma, 2017; Szybillo & Sosanie, 1977; Thaichon, 2017). Parents' influence the consumer socialization process of their children in several ways (Ward, 1974). Like parents, friends and peer group also impacts child's consumer socialization (Mascarenhas & Higby, 1993; Moschis & Churchill, 1978). Television and internet are other important source of consumer socialization for kids. Socialization is more when child's media interaction is high (Chaudhary, Ghouse, & Durrah, 2018; Moschis & Churchill, 1978; O'Guinn & Shrum, 1997). Television for example is not an interactive agent but is greatly significant to the development of young children. It satisfies social needs to some extent, but does not give children the social skills. Children learn through watching television. Some of the things they learn are beneficial; they learn about the world and the ways of the society. Children also learn about current themes and issues, learn more than facts from television; they also get a good daily dose of stereotypes and a lot of misleading information about their world.

### **Role of Social Media**

At this point it is very imperative to understand the role of internet in young child's consumer perception. The internet has formed a new learning culture, which allows children to share, discuss, influence and learn interactively from each other (Lee, Conroy, & Hii, 2003). Using social media Web sites is among the most common activity of today's children and adolescents. Social networking sites such as Facebook, MySpace, and Twitter offer these kids a portal for entertainment and communication and have grown exponentially in recent years. But with this comes the intense need to protect young children from ill effects of unhealthy online environment. Parents as well as practitioners and industries need to understand and solve the problems like cyber bullying, "Facebook depression," sexting, and exposure to inappropriate marketing content.

### **Influence Strategies**

To influence their parents, kids use different influence tactics and strategies. As children do not have direct control over their parents, children of all ages (and cultures) use various tactics to influence their parents (Wimalasiri, 2004). Wood, Weinstein, and Roland (1967) in their study categorized children's manipulation tactics in five dimensions: norm invocation (appeals to rules, fair play, and reason.), positive sanctions (gifts, favors, bargaining, and politeness), negative sanctions (physical aggression, nagging, begging, and crying), ask, and do not know or other. Chaudhary and Gupta (2012)

also identified the influencing strategies as bargaining, persuasion, competition, emotional and aggressive strategies.

### **Children's Influence**

Researchers have studied that for almost all product categories, children have an important role (Akter, 2017; Martensen & Gronholdt, 2008). Children have high influence in purchase of product for which they will be the primary consumer, like breakfast cereals, snack foods, toys, children's clothes and school supplies (Mangleburg, 1990). Children may have less influence on the products which require large money transactions like television, refrigerator, car (Mangleburg, 1990).

Children's influence in the family buying process also varies across decision stages. Buying process has three stages: problem recognition, search for internal and external information and final decision (Davis & Rigaux, 1974). Problem recognition is the stage of need identification. Needs usually arise because of some problem, for example, your new water bottle is lost and you need to buy a new one. Second stage is search for internal and external information. In this stage, you start to search and gather information about potential product choices. And the last stage you decide to buy or not to buy the product you evaluated.

### **Profiling Young Consumers**

Market segmentation plays essential role on understanding the behavior of people's interests in purchasing various products and services through various channels (Afjeh

& Darvishi, 2014). A number of researches have sought to segment consumers using their motivations for shopping. Such consumer profiling provides deep insights into the consumer psyche and subsequently into retail strategy formulation (Bloch, Ridgway, & Dawson, 1994; Reynolds & Beatty, 1999).

Dolničar (2004), conclude that there is no single best way to segment markets. Much research indicates that there are different people within the segmented groups (Rotfeld, 2007). In another exhaustive study by Dolničar (2004), different market segmentation approaches are discussed using the building blocks of data-based and common sense segmentation. Traditionally organizations used socioeconomic and demographic variables to segment markets. Some researchers segment the market on gender, (Baloglu & Shoemaker, 2001; Kim, Lee, & Klenosky, 2000), income, (Kozak, 2002), region (Yuan & McDonald, 1990), motives, (Baloglu & Shoemaker, 2001). Being within the same age group does not mean that they are homogeneous who have the same preferences.

Babin, Darden, and Griffin (1994) in their research had segmented consumers on the basis of their perceived personal shopping value. Some others have investigated the varied reasons people go shopping and focused on developing some taxonomy of shoppers based on their hedonic shopping motivations (Arnold & Reynolds, 2003; Holbrook & Hirschman, 1982). Few researchers have attempted to segment consumers on the basis of

their decision-making styles (Lysonski, Durvasula, & Zotos, 1996; Sproles & Sproles 1990; Sproles & Kendall, 1986). The most identified decision-making styles in which consumers engage in shopping are rational, brand conscious, quality conscious and impulsive shopping.

Regarding children market which is getting bigger and influential, it is traditionally classified according to age. With age “children develop abilities to go beyond perceptual appearances to think more abstractly about their environment and acquire information processing skills (John, 1999). Familiar groupings have been 7-10 years “tweens”, 11-13 years “young teenagers”, 14-16 years “teenagers” and 16+ years “young adults” (Spero & Stone, 2004). Tween aged children are some where in between childhood and adulthood and the transition is not very simple to understand. As child moves away from childhood he/she will experience more emotional, economic and residential freedom (Jekielek & Brown, 2005).

According to Shim and Koh (2004) in their study of profiling adolescent consumer decision-making styles based on their socialization divides young consumers as value-maximizing recreational shoppers, brand-maximizing non-utilitarian shoppers and apathetic shoppers. A very interesting study by Mees (2006) suggested that “experts and adolescents distinguish adolescent segments which are based on practical experiences not mentioned in earlier research”. Then the adolescents were categorized into six Adolescent Types;

“Posh, Eco-warriors, Nerds, Chavs, Goths and Skaters” .

India has a very huge young population. India is home to the largest number of children in the world (UNICEF, 2011). In developing countries, the corporations are experiencing the influence of children in family purchases. India particularly has seen a rapid shift in the international marketplace with increasing disposable incomes, changing living standards and very active traditional and new media revolution. Practitioners may feel the need to be more creative (Wimalasiri, 2004). Marketers need an extensive analysis of a child’s psychology and especially to categorize children into more relevant categories. Yet, there is hardly any empirical exploration into profiling children. This study aims to profile children according to their influence, the product in question and their consumer socialization. The main objective of the present study is to define the profiles of young children as consumers.

## METHODOLOGY

A systematic and descriptive approach was adopted for this empirical study. Based on the research objectives, few in-depth discussions were conducted with children as well as the parents. Then, a questionnaire was prepared as the research instrument. Before the main study, a pilot study was conducted to ensure reliability and validity. Preliminary draft of different sections was pre-tested on 40 children which helped in improving upon the questions and then final questionnaires were framed. The children

of age group 8-12 years were chosen for the study. The reasons of choosing this age group is the fact that children of these ages were expected to be mature enough and have been found to be active and independent shoppers (McNeal, 1992), highly cognitive in consumption choices and knowledgeable about products and brands (Ward, 1974). The questionnaire was tested for reliability with calculating cronbach’s alpha. For all the sections, cronbach’s alpha was more than 0.6 and hence the research instrument is considered reliable for study (Konecny & Thun, 2011). The result and items under each section is displayed in Table 1.

The original field survey was then conducted with young children who provided greater insight into all possible practical aspects of family decision making.

The final questionnaire had four parts:

Part 1: Questions regarding child’s demographics

Part 2: Questions measuring child’s consumer socialization

Part 3: Questions regarding child’s influence levels for various products

Part 4: Questions regarding child’s influence levels for buying process stages

Part 5: Questions regarding child’s use of influence strategies

The study is conducted in the National Capital Region (NCR) of India. With the help of cluster sampling, data was collected from child clusters from 10 different schools. A total of 200 questionnaires are sent to these 10 schools and appointment took to get these filled from children studying in grades III to VIII. Each cluster contained around 10

Table 1

*Reliability check for instrument*

Sections	No. of items	Cronbach alpha	Kaiser-Meyer-Olkin Measure of Sampling Adequacy	Bartlett's test of sphericity	
Child's Consumer Socialization	11	0.606	0.653	Approx. Chi Square	192.093
				Df	55.000
				Sig.	0.000
Child's Influence for different products	15	0.863	0.840	Approx. Chi Square	881.157
				Df	105.000
				Sig.	0.000
Child's Influence at various stages	45	0.924	0.791	Approx. Chi Square	5655.084
				Df	990.00
				Sig.	0.000
Child's use of influence strategies	16	0.790	0.783	Approx. Chi Square	586.471
				Df	120.000
				Sig.	0.000

students. Children were asked to complete the questionnaire in their class itself in the presence of the researcher but with the absence of the teacher. Out of the 187 responses received, only 175 questionnaires are found to be complete. The collected data is saved and coded in Microsoft Excel and analyzed using Statistical Package for Social Sciences 18.0 (SPSS).

## RESULTS

The collected data is fed in the Microsoft Excel sheets and used as database for SPSS version 18. The analysis is done in a very structured manner, firstly the principal component factor analysis is conducted for various sections and then mean scores on these factors were calculated for further analysis.

## Demographics of respondents

The first section of questionnaire gathered information about child's profile which included age, gender, number of siblings, birth-order and education. Of 175, 92 child respondents (52.57%) fell in the younger age-group i.e. between 8 and 10. These characteristics are shown in Table 2.

## Socialization

For analyzing child's consumer socialization, the young respondents were to state their degree of agreement or disagreement with different statements on a 3 point Likert scale ranging from 1 to 3. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (0.653) and Bartlett's test of sphericity (Chi-Square = 192.093) showed good results. Then Principal Component

Table 2  
*Demographics of children*

Characteristics	n (frequency)	Percentage
<b>Age-group</b>		
8 – 10	92	52.57
11 – 12	83	47.42
<b>Gender</b>		
Male	116	66.28
Female	59	33.71
<b>No. of siblings</b>		
Single child	36	20.57
With siblings	139	79.40
<b>Birth Order</b>		
Youngest	61	34.86
Eldest	66	37.71
Middle-one	12	06.85
Single Child	36	20.57
<b>Grade</b>		
III	12	06.85
IV	34	19.42
V	39	22.29
VI	35	20.00
VII	29	16.57
VIII	26	14.86

factor Analysis was done to extract the socialization agents for the child's consumer knowledge. The value of Cronbach's alpha is 0.606 at the significance level of 0.000.

Factor analysis as explained resulted in four consumer socialization agents namely: Friends and Television, Internet, Parents and Shopping. As seen from Table 3, the first agent, Friends and Television has four items with all the factor loading above 5.00. Second agent is Internet which has

three items, third agent is Parents with three items. And last agent is Shopping. The ranking using the mean scores and standard deviation are given in Table 4. It is clear from Table 4 that the shopping exposure is the most prominent agent for the child's consumer socialization with the highest mean of 2.05, stating that young Indian children get lot of information through shopping trips with their parents. Kids may not be shopping themselves but they are very much present and they acquire their consumer skills when they get live shopping experience. It is followed by parents as a socialization agent (mean = 2.00, sd = .434), then friends and television (mean = 1.838, sd = .437). The fourth agent is internet with mean value of 1.737 (sd = .55).

### Product Type

Similarly, for analyzing child's influence for various products another factor analysis was done. In total fifteen products and services (including variety of household and child related products are taken) were taken on a 5 point likert scale and factor analysis was conducted as shown in Table 5. Reliability check was good (Cronbach's alpha = 0.863), Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.840 and Bartlett's test of Sphericity: Approx. (Chi-Square) = 881.157.

This factor analysis resulted into three product categories. These Product categories are as follows:

Table 3  
*Factor analysis for socialization agents*

Factor	Item	Factor Loading	Factor Name
1	You watch lot of television programs in a day.	0.57	Friends and TV
	You want to buy the products advertized on television.	0.44	
	You usually buy the same stuff as your friends.	0.78	
	You discuss with your friends about the things you want to buy.	0.67	
2	You surf lot of internet in a day.	0.76	Internet
	You use internet to find information about products from internet.	0.70	
	You use internet for school assignments.	0.70	
3.	Your parents discuss with you about the things they want to buy.	0.69	Parents
	You came to know about the new products from your parents.	0.52	
	Your parents ask for your opinion before buying a product.	0.80	
4.	You go out for shopping.	0.906	Shopping

Table 4  
*Mean and standard deviations of socialization agents*

Socialization Agents	Mean	Std. Deviation
Internet	1.737143	.55431
FTV	1.838571	.43798
Parents	2.00381	.43474
Shopping	2.051429	.58984

**Family Products: Family product** is the name given to the first product category identified through factor analysis. This category is made up of six products/items: vacation, computer, mobile phone, car, television and washing machine as shown in Table 5. These products are expensive

products and their purchase takes most of time and discussion of parents and kids together.

**Child Products: Child product** is the second product category comprises of six products: stationery, books, food and beverages, clothes, movie tickets, dining

Table 5  
*Factor analysis of product categories*

Factor	Item	Factor Loading	Factor Name
1	Vacation	0.55	Family Products
	Computer	0.54	
	Mobile Phone	0.79	
	Car	0.74	
	Television	0.80	
	Washing Machine	0.59	
2	Stationary Books	0.67	Child Products
	Food and Beverages	0.63	
	Clothes and Shoes	0.48	
	Movie Ticket	0.49	
	Dining out	0.67	
	Video game	0.55	
3.	Shampoo	0.80	Household Products
	Toothpaste	0.74	
	Grocery	0.66	

Table 6  
*Means and standard deviation of the product categories*

S. No.	Factor Name	Mean	Standard Deviation
1	Loud Goods	3.09	.63
2	Noisy Goods	3.09	.98
3	Quiet Goods	2.99	.68

out and video games. These are the products of high child involvement and are directly used by children.

**Household Products:** The third category is of household products which includes three products; shampoo, toothpaste and grocery items. These products are regular household products for which usually not much discussion happens in family.

As seen from Table 6, out of all the product categories, children have higher influence for loud and noisy goods and relatively less for quiet goods. The reason is child’s level of involvement. Quiet goods are usual house-hold items for which parents usually take the decision. On the other hand noisy goods are child centric goods and they are bound to have more influence. Children’s influence on loud goods is interesting as

loud goods are expensive but still children feel they influence those decisions as well.

**Buying Stages**

Initiation Stage: Initiation Stage is the first and most important stage in there three stage buying process. In this stage, problems or needs are recognized. The buying process is triggered by internal stimuli or external stimuli. So in this stage, a prospective consumer identifies that there is a need or want to buy a product / service.

Search and Evaluation Stage: The next stage is to search for the products which can solve the problem (or satisfy the need) one identified in the first stage. The buyer will make effort to search information related to the products/services. One may also seek the opinions of friends, family and colleagues. The buyer then evaluates and compares each product against each other and may also rank the choices.

Final Decision Stage: After the Search and Evaluation stage, the consumer who has evaluated the different products and services to satisfy his need, will be making the final

decision to buy or not to buy. His decision will depend on the information and the selection made in the previous stages which help him decide the brand, store and other specifics of his future purchase.

The means and standard deviations (Table 7) were used to rank the child’s influence across the buying process stages and sub-decisions. As seen, Children feel they have highest influence in the final decision stage and least influence in the Initiation stage.

**Influence Strategies**

For analyzing the various influence tactics used by children to persuade their parents, another factor analysis was done. A list of sixteen different influence tactics was prepared. The respondents were asked to rate how often the child use these influence tactics on a 5 point Likert scale ranging from 1 to 5, 1 being never used and 5 being used every time. Factor analysis resulted in these five strategies (Table 8).

Table 7  
*Mean and standard deviations for buying process stages*

Buying Process Stages	Mean	Std. Deviation
Initiation Stage	1.886	.376
Search and Evaluation Stage	1.753	.401
Final decision Stage	1.833	.416

**Aggressive Influence Strategies:** These are the influence tactics where children use aggression to pester their parents. In such cases, a child thrust his demand by expressing rage, by showing annoyance and by acting obstinately.

**Persuasion Influence Strategies:** At times children use variety of opinions and beliefs to influence parents. These are persuasion tactics. For example a child may nag his/her parents constantly to demand something. Tricks like begging, arguing, whining are often used by young kids.

**Rational Influence Strategies:** When the young child provides logic in his pestering, it falls under rational tactics. Children play smart by negotiating with parents for example doing homework in exchange of an ice cream.

**Knowledge Influence Strategies:** Children also use their knowledge to influence their parents. Many times, children know about the product or brand through different media and advertisements and they use this knowledge to have their way with their parents.

**Emotional Influence Strategies:** Emotional tactics like being too nice and obedient to parents also works for children to influence parents. Children act affectionately and soft in their behavior to get what they want.

The strategies are then ranked. The ranking using the mean scores and standard deviation are given in Table 9. It is clear that the emotional strategies had the highest mean of 2.80, stating that according to young Indian children, they use emotional strategies most often to influence their parents to purchase any product.

Table 8  
*Factor analysis of influence strategies*

Factor	Item	Factor Loading	Factor Name
1.	Express Anger	0.70	Aggressive Strategies
	Not Eating	0.79	
	Stubbornly acting	0.76	
2.	Express opinion on product	0.43	Persuasive Strategies
	Insisting that this is what he/she want	0.61	
	Use begging strategies	0.78	
	Nagging and Whining	0.53	
	Pretending illness to make parents sympathize	0.46	

Table 8 (Continue)

Factor	Item	Factor Loading	Factor Name
3.	Offer Deals	0.64	Rational Strategies
	Bringing an external reason	0.46	
	Propose fair competition	0.75	
	Hide things in the shopping trolley	0.39	
4.	Tell about the TV ad he/she saw about product	0.70	Knowledge Strategies
	Tell that the brand is famous	0.68	
5.	Tell that all friends have it	0.52	Emotional Strategies
	Be unnaturally nice to parents	0.79	

Table 9

Mean and standard deviations for influence strategies

Influence Strategies	Mean	Std. Deviation
Aggressive Strategies	2.2610	.99094
Persuasion strategies	2.5646	.72580
Rational Strategies	2.1200	.82865
Knowledge Strategies	2.5914	1.00154
Emotional Strategies	2.8029	.90162

### Children Consumer Profiling

The critical findings provided us with three different consumer profiles for children. Based on children’s socialization, influence strategies and their influence in the various buying stages, their distinct consumer profile can be identified and used for various business and marketing decision making.

Children who had highest influence on the loud goods have some distinct characteristics; similarly children who had highest influence on the noisy and quiet goods also have some specific

characteristics. Using the radar diagram, the mean scores of four child’s socialization factors, five influence strategies and child’s influence level for three different buying stages, three consumer profiles for young children has been created.

Figure 1 graphically shows the three distinct consumer profiles of young children. This figure was constructed using the mean scores of Socialization agents, Influence strategies and Product categories on radar in Microsoft Excel.

### Quiet Shoppers

Quiet Shoppers are children who are more socialized by their parents, friends and television and have relatively high influence in the buying of household products like shampoo, toothpaste and grocery. Quiet shoppers usually do not initiate the buying process but they do have their say in the final buying decision or sub decisions like color, variant, etc. These children usually use emotional strategies to influence parents.

### Loud Shoppers

Loud shoppers are very loud in ascertaining their influence over parent’s decision for buying expensive family products like car, television, computer or mobile phone. Such young shoppers are largely influenced by

shopping with their parents and through friends and TV. As far as the buying stage is concerned, loud shoppers are most influential in the first and final buying stage.

### Noisy Shoppers

Noisy shoppers are very involved with the products of their involvement like stationary, clothes, food and beverages, movie tickets, dining out and video games. These noisy shoppers largely influenced from friends and TV. Noisy shoppers create lot of noise to initiate the buying process as well as other stages also.

Figure 1 graphically shows the three distinct consumer profiles of young children.

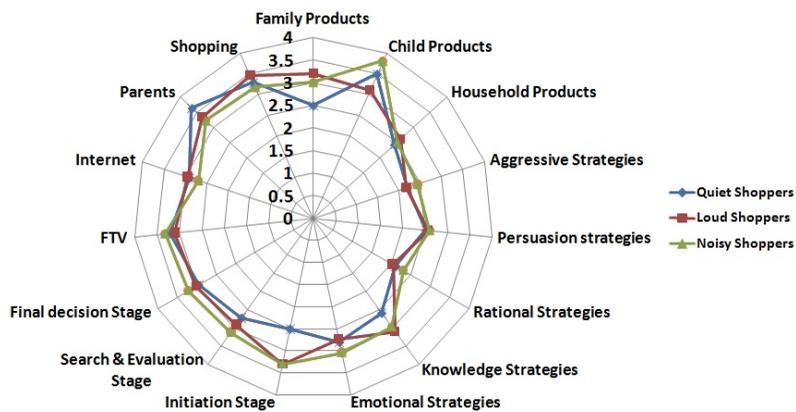


Figure 1. Children’s consumer profiling

## **DISCUSSION**

For marketers' consumer profiling is very useful marketing tool. The main objective behind consumer profiling is to break your consumer base into distinct target groups that share specific characteristics. These distinct characteristics can be based on demographics (age, and gender), geographical (local, global), behavioral (attitude, usage, response) or psychographic (lifestyle, interest, opinion). Profiling allows organizations to enhance consumer segmentation with more insight of the target consumers which allows them to make more effective and efficient business decisions.

This study was aimed at the development of commercially interesting children market segments and has been successful in identifying the different consumer profiles for children based on children socialisation, the strategies they use to pester and their relative influence in different stages of consumer buying. The three profiles identified are: Quiet shoppers, Loud shoppers and Noisy shoppers. These children profiles give insight about the role these young consumers have in their family groups. The identified children profiles can provide today's marketer an edge by strategically develop strategies to target this commercially interesting market segment. Using these profiles, the firms can develop insights about their target markets and formulate effective marketing strategies. For marketers who are aiming Noisy Shoppers have to be very cautious about how they are placing their product. Any marketing communications

to this group may be more effective if the product or brand is associated with fun and happiness, rather than talking about actual product facts. On the other hand for the Loud Shoppers, the advertisement should aim at creating awareness of the product, the factual details, features and benefits, and portray uniqueness of the product and excitement in usage. But marketers need to be very careful dealing with children. They partially understand the intent of advertising and they tend to take advertised claims about a product literally. Also since the research and impact would be on young children, it is our responsibility to apply responsible marketing towards them.

The developmental stages of children and their distinct characteristics (as a very active participant and influencer in family buying) will enable researchers to inquire them more thoroughly. From an academic perspective, a latest field of research is unwrapped to be explored.

So far very few studies were conducted at this detailed level on very kids.

## **FUTURE DIRECTIONS AND LIMITATIONS**

This study can be limited in terms of geographical extent as data from ten schools in the NCR region in India is taken. So the scope of the study is limited to the sample size and to the metro cities. Future research can be more elaborate with more schools and geographical reach. Also, future researches could also include a broad range of factors that determine family decision making, including the effect of demographic factors.

## CONCLUSION

The empirical study conceptualized and discussed the distinct factors that characterize a young consumer's role in family decision-making process. Through different variables: child's involvement at various buying stages, product type and various tactics used by children, distinct consumer profiling of young children is attempted. Detailed analysis included principal component factor analysis, ranking through descriptive analysis and with the help of radar diagram; children's consumer profiles are identified. Three distinct profiles identified are "Quiet Shoppers", "Loud Shoppers" and "Noisy Shoppers".

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## **Development and Validation of Breast Cancer Knowledge and Beliefs Questionnaire for Malaysian Student Population**

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### **ABSTRACT**

This study aimed to develop and validate a questionnaire on Malaysian students' knowledge and belief toward breast cancer and breast cancer screening. A cross sectional study was conducted among 792 female undergraduate students in selected public universities in Klang Valley, Malaysia. Convergent and discriminant validity tests were used for assessing construct validity of the questionnaire while the internal reliability of the instrument was checked by Cronbach's alpha. The average age of respondents was 22 years ( $21.77 \pm 1.20$ ). Majority of them were single (96.8%), Malay (91.9%), and Muslim (94.6%). This instrument had a good face and content validity. Cronbach's alpha coefficient for Health Belief Model Scales ranged between 0.73-0.83, indicating acceptable levels of internal consistency. The Kappa value for the knowledge part ranged between 0.52-0.90, also showing acceptable

reliability. The developed instrument indicated good construct validity and reliability for Malaysian female students. This instrument can help health care planners and providers to measure levels of knowledge and beliefs of Malaysian women toward breast cancer before planning appropriate intervention.

*Keyword:* Breast cancer, breast cancer screening, Malaysia, validity

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## INTRODUCTION

In 2012, nearly 1.7 million cases of breast cancer diagnosed in worldwide and make it the major cause of death and most of common cancer among women in developing countries (Akhtari-Zavare, Juni, Irm, Said, & Latiffah, 2015; World Cancer Research Fund International, 2017). In Malaysia, breast cancer is the most common cancer and main cause of cancer deaths among females (Parsa, 2008). The National Cancer Registry revealed that there are 11,952 female breast cancer cases, which account for 31.3 % of all cancer cases registered (National Cancer Registry Malaysia, 2008).

As in other developing countries, in Malaysia the rate of breast cancer is lower than that of the developed countries, but 50-60% of breast cancer patients are diagnosed in late stages (stage III & IV) (Hisham & Yip, 2004). Patients' low level of knowledge about breast cancer and breast cancer screening (BCS) (Akhtari-Zavare et al., 2016) are the causes for the low rate of performing breast cancer screening test among females (Akhtari-Zavare, Juni, Irm, Said, & Latiffah, 2015a, Akhtari-Zavare, Latiffah, Juni, Said, & Irm, 2015b). Social and cultural perception of breast cancer (Hisham & Yip, 2003) and low access to treatment centres in urban areas (Yip, Pathy, & Teo, 2014) are found to be main reasons for late diagnosis of breast cancer in Malaysia. Studies conducted on different groups in Malaysia showed low level of knowledge which was between 40% and

71% and breast self-examination (BSE) practice ranged from 19.6% to 36.7 %, respectively (Akhtari-Zavare, Latiff, Juni, Said, & Irm, 2015c; Rosmawati, 2010). In Malaysia, many studies highlight the need for breast health education among Malaysian women to increase their awareness about breast cancer and BCS test and to educate them to report any abnormalities in their breast to the healthcare workers (Akhtari-Zavare et al., 2016; Ghanbari-Baghestan, Indriyanto, SazmandAsfaranjan, & Akhtari-Zavare, 2016; Radman et al., 2012).

Early detection of breast cancer, which can be diagnosed by mammography, clinical breast examination (CBE), and breast self-examination (BSE), can result in lower mortality rate and more effective treatment (Ersin & Bahar, 2013; Yilmaz, Bebis, & Ortabag, 2013). Reportedly, the five-year survival rate among breast cancer patients increased from 93% to 100% when detected in stages I or II while it decreased to 72%-22% when detected in stages III or IV (American Cancer Society, 2013). There are doubts about the efficacy of BSE (Babu et al., 2011). The results from two large randomized control trials in Shanghai, China and St, Petersburg, Russia have failed to show any impact of the BSE technique on breast cancer mortality or on the stage or size of the cancer when detected (Thomas et al., 2013; Semiglazov, Sagaidak, Moiseyenko, & Mikhailov, 1993). However, BSE is recommended for raising breast health awareness among women because it is cheap, simple, and easy to learn with

no need to sophisticated technology (Babu et al., 2011). Additionally, it provides opportunity for women who are familiar with normal breast, notice any changes in their breast, and search for CBE and mammography screening guideline later in life (Akhtari-Zavare, Ghanbari-Baghestan, Latiffah, Matinnia, & Hoseini, 2014; Anderson, Braun, & Carlson, 2003; Secginli & Nahcivan, 2006).

Due to the known association between low level of breast cancer and BCS test and advanced clinical stages of breast cancer (Akhtari-Zavare et al., 2015a, 2016), it is important to evaluate women's knowledge on breast cancer and their ability to conduct breast cancer screening test. It is similarly crucial to investigate the related factors that cause Malaysian females to procrastinate their breast cancer tests. In this paper, we report the development and validation of a questionnaire to measure Malaysian female students' knowledge of breast cancer and breast cancer screening as well as their beliefs regarding performing breast cancer screening.

## **METHODS**

### **Study Design**

A cross-sectional study was conducted among undergraduate female students in four public universities in Klang Valley, Malaysia. The participants of this study were; (1) Malaysian citizen, (2) aged 20 and above, (3) with no history of breast cancer, and (4) not pregnant or breastfeeding.

### **Sampling Method and Data Collection**

Multistage random sampling was used to select the respondents. Four universities out of six public universities in Klang Valley were chosen by simple random number table. Then, from each of these four public universities one faculty was selected by simple random sampling. List of female students which had inclusion criteria were used as sampling frame for this study; and 820 respondents were randomly selected from sampling frame by using simple random number table.

Data were collected via self-administered dual-language questionnaire from January to April 2011. Before data collection, an information sheet containing the aim and detailed information of study was given to the students and a participant's completion of the questionnaire was considered to constitute her written consent.

### **Construction of Questionnaire**

The questionnaire was developed based on the previous research publications (Dundar et al., 2007; Parsa, 2008) and a review of the current material containing knowledge of breast cancer screening (CBE, mammography, BSE), knowledge of breast cancer and health belief model. It was decided to divide the questionnaire into two sections. The first section (Section A) included four sub-scales (knowledge of risk factors in breast cancer, knowledge of symptoms in breast cancer, knowledge of BSE and CBE). Nominal scale of "True", "False" and "I do not know" were used to

measure responses. Participants were scored one mark for each correct answer and zero for every wrong or 'I don't know' response.

The second section (Section B) was adapted from Champion's Revised Health Belief Model Scale (CHBMS) which assesses respondents' beliefs (Champion, 1993). This section included six sub-scales (susceptibility and seriousness of breast cancer, benefit of BSE, barrier of BSE, the confidence of doing BSE and health motivation). Likert scale one (strongly disagree) to five (strongly agree) were used to measure level of agreement of respondents.

Socio-demographic information included age, marital status, ethnicity, religious, and family monthly income, which were included at the end of the questionnaire.

### **Translation of Questionnaire**

The back-translation technique was used for translating questionnaire. Two bilingual linguistic experts translated the questionnaire (health belief model scale and knowledge of breast cancer and breast cancer screening) from English into Malay. The experts met and reviewed the translations together for inconsistencies with the English form. Conceptual rather than literal translation was needed to preserve the meaning of each item, and these guidelines were provided to the translators. By using back-translation technique and content validity, the adequacy of the Malay translation of

the questionnaire was evaluated; the Malay version of questionnaire was translated back into English by a bilingual individual from a health research center. The back-translated and English versions of the questionnaire were compared with attention given to the meaning and grammar. Finally, an expert committee (two professors from family medicine, one professor from community health, one nurse and one epidemiologist) examined all the translation and adaptation processes and provided the pre-final version of questionnaire.

### **Face Validity**

Face validity is concerned with whether a measurement seems to be assessing the intended parameters (Norman & Streiner, 1994). Face validity was carried out on pre-final version of questionnaire by discussing the items individually with 10 students to establish brevity, clarity and simplicity of the questionnaire. The authors were evaluated all results which obtained from adaptation procedure; and then the final Malay version of questionnaire was developed.

### **Test-retest Reliability**

The test-retest reliability was used to determine the reliability of knowledge part of questionnaire. The test-retest reliability was conducted among 80 female undergraduate students that did not participate in the main study with 14 days interval between the first and second administrations of the questionnaire.

### **Ethical Approval**

The study protocol was approved by the Ethical Committee of Universiti Putra Malaysia, Ministry of Higher Education in Malaysia as well as the president of the selected public universities in Klang Valley, Malaysia.

### **Sample Size**

The sample size of this study was calculated by using Daniel formula; based on the estimated prevalence of dependent variable in this study (Daniel, 1999). To calculate the sample size, in order to achieve 80% power, and based on the prevalence of breast cancer knowledge in Malaysia (11.2%) (Parsa, 2008), with 20% attrition rate, 792 respondents were required.

### **Statistical Analysis, Construct Validity of Questionnaire**

Descriptive statistics (frequency, mean and standard deviation) were applied to summarize socio-demographic characteristics of the respondents. Convergent and discriminant validity were used for assessing construct validity of the questionnaire while its reliability was checked by Composite reliability. In this study the questionnaire consisted of two sections; “knowledge on breast cancer screening & breast cancer” and “health belief model”. The first section (knowledge on breast cancer screening & breast cancer) included 4 sub-scales which are formative

constructs and the second part (health belief model) was measured by 6 reflective constructs.

Convergent validity was used for “health belief model” based on the value of inter correlations (range from -1.00 to +1.00) for all 6 subscales (seriousness, severity, benefit, barrier, confidence and motivation). This provided evidence that all six items are related to the same construct (health belief model). For checking the validity of section A “knowledge on breast cancer screening & breast cancer”, initially collinearity was checked based on VIF and Tolerance among all items, followed by assessing the significance and relevance of outer weights and outer loading of all items using Bootstrap method.

In this study the construct validity of both measurements (convergent and discriminant) were evaluated using SEM-PLS method applying smart-PLS Ver 2.

## **RESULTS**

Out of 820 selected female students, 792 completed the questionnaire resulting in a response rate of 96.5%). The socio-demographic characteristics of the 792 participants who completed the questionnaire are summarized in Table 1. The average age of respondents was 22 ( $21.77 \pm 1.20$ ). Majority of them were single (96.8%), Malay (91.9%), Muslim (94.6%) with average family income of RM 5000.00 ( $4722.72 \pm 2126.72$ ).

Table 1  
*Socio-demographic characteristics of respondents (n=792)*

Variables	No	%
Age (Mean±SD)	21.77± 1.20	
Marital Status		
Single	767	96.8
Others	25	3.2
Ethnicity		
Malay	728	91.9
Non-Malay	64	8.1
Religious		
Islam	749	94.6
Non-Islam	43	5.4
*Family Income (RM) (Mean±SD)	4722.72±2126.72	

SD standard deviation, \*USD1= RM4

**Convergent Validity of Health Belief Model**

The measurement model results for Health Belief Model showed that all items had an outer loading above 0.5 and were above the threshold except for two items, belonging to motivation (items 6 and 7) which had low factor loadings; therefore, these items were removed from the final measurement model. These results revealed that Composite Reliability (CR) was 0.820 to 0.900. In addition, in this study, convergent validity

(AVE) for all the six subscales was above 0.5 (Table 2). Cronbach’s alpha, which provides an estimate of internal reliability based on the inter-correlations of the observed indicator variables, also was more than the threshold (0.7). Thus, the results prove that convergent validity (AVE) and Composite Reliability (CR) exist for the constructs of this study. The p values for factor loading were calculated through Bootstrap method and the results were significant for all items.

Table 2  
*Results summary for Measurement Model of Health Belief Model (Convergent validity)*

Construct	Item	Loading	p value	AVE	Composite Reliability	Cronbachs Alpha
Barrier	BAR1	0.616	<0.001	0.533	0.872	0.830
	BAR2	0.757	<0.001			
	BAR3	0.781	<0.001			
	BAR4	0.770	<0.001			
	BAR5	0.778	<0.001			
	BAR6	0.661	<0.001			

Table 2 (continue)

Construct	Item	Loading	p value	AVE	Composite Reliability	Cronbachs Alpha
Benefit	BEN1	0.747	<0.001	0.541	0.876	0.834
	BEN2	0.684	<0.001			
	BEN3	0.795	<0.001			
	BEN4	0.748	<0.001			
	BEN5	0.724	<0.001			
	BEN6	0.709	<0.001			
Confidence	CONF1	0.646	<0.001	0.475	0.900	0.879
	CONF2	0.731	<0.001			
	CONF3	0.718	<0.001			
	CONF4	0.720	<0.001			
	CONF5	0.691	<0.001			
	CONF6	0.684	<0.001			
	CONF7	0.697	<0.001			
	CONF8	0.619	<0.001			
	CONF9	0.680	<0.001			
	CONF10	0.697	<0.001			
Motivation	MOT1	0.804	<0.001	0.619	0.887	0.836
	MOT2	0.905	<0.001			
	MOT3	0.818	<0.001			
	MOT4	0.843	<0.001			
	MOT5	0.501	<0.001			
	MOT6*	0.119	----			
	MOT7*	0.082	----			
Seriousness	SER1	0.602	<0.001	0.432	0.820	0.739
	SER2	0.648	<0.001			
	SER3	0.639	<0.001			
	SER4	0.683	<0.001			
	SER5	0.727	<0.001			
	SER6	0.639	<0.001			
Susceptibility	SUS1	0.619	<0.001	0.634	0.895	0.863
	SUS2	0.813	<0.001			
	SUS3	0.805	<0.001			
	SUS4	0.835	<0.001			
	SUS5	0.883	<0.001			

\* Items were removed from the final model

**Convergent Validity of Knowledge on Breast Cancer Screening and Breast Cancer**

This measurement consisted of four subscales including breast self-examination, CBE, risk factors and symptoms of breast cancer. All the constructs were designed as formative construct due to independency among items.

The first step in evaluation of formative constructs is checking collinearity issues via assessment of Formative Measurement Models. First, collinearity among the indicators should be checked if there were high correlations between indicators of the same construct (Table 3).

Second, an indicator may not significantly contribute to the construct both relatively and absolutely. This can be

evaluated by assessing the significance and relevance of the formative indicators for outer weight and outer load using Bootstrap method. The results indicated all items for these constructs showed significant contribution in related constructs with an exception of item 3, belonging to symptoms of breast cancer which was not statistically significant. Therefore this item was removed from the final measurement (Table 4).

**Discriminant Validity**

Discriminant validity is enough for all of the constructs; because AVE of each construct is more than each squared correlation between constructs (refer to table 5). Also, the correlations between the latent variables ranged from -0.198 to 0.340, which were below the threshold 0.85. The correlation

Table 3  
*Collinearity assessments for formative construct based on VIF and Tolerance*

Construct	Item	Tolerance	VIF	Construct	Item	Tolerance	VIF
Breast Self-Examination	BSE1	0.86	1.16	Risk factors in breast cancer	RF1	0.52	1.90
	BSE2	0.89	1.11		RF2	0.96	1.03
	BSE3	0.92	1.07		RF3	0.81	1.23
	BSE4	0.60	1.66		RF4	0.92	1.07
	BSE5	0.88	1.12		RF5	0.72	1.38
	BSE6	0.82	1.21		RF6	0.6	1.47
	BSE7	0.88	1.12		RF7	0.88	1.13
	BSE8	0.92	1.08		RF8	0.83	1.20
	BSE9	0.81	1.24		RF9	0.40	2.48
	BSE10	0.42	2.36	Symptoms of breast cancer	SYM1	0.39	2.52
	BSE11	0.34	2.86		SYM2	0.92	1.08
Clinical breast examination	CBE1	0.39	2.54		SYM4	0.83	1.20
	CBE2	0.50	1.97		SYM5	0.29	3.37
	CBE3	0.78	1.26	SYM6	0.80	1.24	
	CBE4	0.79	1.26				

Table 4  
*Assessment of significance and relevance of outer weights and outer loading using bootstrap*

Construct	Item	Outer weight	SE	t value	p value	Outer loading	SE	t value	p value
Breast Self-Examination	BSE1	-0.15	0.10	1.50	0.13	0.15	0.10	1.46	0.14
	BSE2	0.28	0.12	2.27	0.02	0.48	0.11	4.14	<0.001
	BSE3	0.21	0.11	1.94	0.05	0.38	0.11	3.29	0.001
	BSE4	-0.05	0.10	0.51	0.60	0.35	0.12	2.97	0.003
	BSE5	0.07	0.08	0.82	0.40	0.26	0.11	2.26	0.02
	BSE6	0.34	0.13	2.56	0.01	0.63	0.11	5.53	<0.001
	BSE7	0.07	0.09	0.85	0.39	0.33	0.12	2.66	0.008
	BSE8	0.17	0.10	1.59	0.11	0.41	0.11	3.55	<0.001
	BSE9	0.38	0.13	2.96	0.00	0.68	0.09	7.28	<0.001
	BSE10	0.39	0.16	2.38	0.01	0.61	0.10	5.95	<0.001
	BSE11	-0.02	0.12	0.21	0.82	0.56	0.10	5.26	<0.001
Clinical breast examination	CBE1	0.67	0.17	3.95	0.000	0.92	0.04	19.88	<0.001
	CBE2	0.47	0.14	3.28	0.001	0.89	0.05	17.18	<0.001
	CBE3	-0.07	0.09	0.76	0.44	0.37	0.13	2.78	0.006
	CBE4	-0.08	0.10	0.81	0.41	0.25	0.12	1.99	0.04
Risk factors in breast cancer	RF1	0.06	0.08	0.82	0.40	0.62	0.07	8.49	0.000
	RF2	0.23	0.10	2.20	0.02	0.35	0.11	3.15	0.002
	RF3	0.11	0.07	1.62	0.10	0.48	0.07	6.77	<0.001
	RF4	0.18	0.08	2.02	0.04	0.40	0.09	4.17	<0.001
	RF5	0.18	0.09	2.05	0.04	0.62	0.06	9.15	<0.001
	RF6	0.32	0.09	3.41	0.001	0.72	0.05	12.41	<0.001
	RF7	-0.04	0.06	0.64	0.51	0.17	0.09	1.97	0.04
	RF8	0.19	0.09	2.08	0.03	0.54	0.08	6.49	<0.001
	RF9	0.38	0.12	2.98	0.00	0.78	0.05	15.22	<0.001
Symptoms of breast cancer	SYM1	-0.43	0.18	2.34	0.01	0.12	0.11	1.13	0.25
	SYM2	0.62	0.09	6.93	0.00	0.76	0.07	10.91	<0.001
	SYM3*	-0.09	0.10	0.90	0.36	0.10	0.08	1.26	0.20
	SYM4	0.22	0.10	2.22	0.02	0.48	0.08	5.50	<0.001
	SYM5	0.37	0.18	2.00	0.04	0.38	0.11	3.22	0.001
	SYM6	0.50	0.11	4.54	0.00	0.66	0.08	7.82	<0.001

coefficients were less than the square root of the AVE for reflective constructs, demonstrating good discriminate validity between these factors (Kline, 2005).

Table 6 shows the result of test-retest reliability for knowledge of breast cancer

and breast cancer screening. Based on the value of kappa, reliability was at an acceptable level. The high value of kappa related to knowledge of CBE (0.80-0.90) and lower value related to knowledge about risk factors of breast cancer (0.52-0.97).

Table 5  
*Correlation of latent variables and discriminant Validity*

	BAR	BEN	BSE	CBE	CONF	MOT	RF	SER	SUS	SYM
BAR	0.73									
BEN	-0.02	0.73								
BSE	-0.12	0.17	Form*							
CBE	-0.11	0.15	0.25	Form*						
CONF	-0.09	0.25	0.21	0.15	0.68					
MOT	-0.14	0.34	0.25	0.10	0.10	0.78				
RF	-0.08	0.17	0.29	0.35	0.19	0.11	Form*			
SER	0.28	0.18	0.03	-0.02	-0.04	0.15	-0.04	0.65		
SUS	0.13	-0.05	-0.15	-0.01	-0.01	-0.19	0.06	0.05	0.79	
SYM	-0.14	0.09	0.33	0.30	0.13	0.13	0.34	0.04	0.00	Form*

\*Form: Formative constructs, BAR barrier, BEN benefit, CBE knowledge clinical breast examination, BSE knowledge of breast self-examination, CONF confidence, MOT motivation, RF knowledge of risk factors breast cancer, SER seriousness of breast cancer, SUS susceptibility of breast cancer, and SYM knowledge of symptoms of breast cancer

Table 6  
*Result of test-retest reliability for knowledge part*

Scales	Kappa value
Knowledge about risk factors of breast cancer	0.52-0.97
Knowledge about symptoms of breast cancer	0.70-0.97
Knowledge of clinical breast examination	0.80-0.90
Knowledge of breast self-examination	0.70-0.87

## DISCUSSION

Early detection of breast cancer by improving female knowledge of breast cancer screening is important because of its reducing rate of morbidity and mortality (Kwok, Ogunsiji, & Lee, 2016). It is equally important to investigate women’s knowledge and beliefs about BC and BCS as they play important roles among female to motivate them to doing health protection behaviour in different cultures and countries (Champion, 1994). This fact lends particular importance

to the development of our questionnaire as the first step to early detection of BC is assessing patients’ knowledge and beliefs towards breast cancer and BCS.

Construct validity of this instrument was checked by using convergent and discriminant validity and Cronbach alpha coefficients were used for checking the internal reliability of the questionnaire items (Unger-Saldaña, Peláez-Ballestas, & Infante-Castañeda, 2012). The result of the current study showed that the questionnaire

had good face validity, comprehensibility and good reliability for most items. This result is in line with studies conducted in Australia (Kwok et al., 2016) and Mexico (Unger-Saldaña et al., 2012).

The four factors in the Malaysian version of the knowledge construct are similar to those of Kwok et al. (2016) who investigated 284 African Australian women. Consistent with previous findings in Uganda (Elsie et al., 2010), Iran (Tilaki & Auladi, 2015), Malaysia (Akhtari-Zavare et al., 2015c) and Eastern China (Liu et al., 2014) this study had an acceptable and good kappa value for reliability of knowledge on breast cancer, BSE and CBE.

The result of this study showed that Modified version of Champion Health Belief Model is a suitable instrument for assessing belief of breast cancer screening and breast cancer among young female in Malaysia. The result is similar to that of a previous study by Parsa among Malaysian Teachers (Parsa, Kandiah, Nasir, Hejar, & Afiah, 2008). The Cronbach's alpha coefficients for all subscales of HBMS ranged from 0.73 to 0.83, showing acceptable and good levels of internal consistency. These results are similar with original version of CHBMS (Champion, 1993) and previous studies done in Malaysia (Akhtari-Zavare, Ghanbari-Baghestan, Latiffah, & Khaniki, 2015d), Turkey (Secginli & Nahcivan, 2004) and Jordan (Mikhail & Petro-Nustas, 2001).

This study had some limitation. Firstly, this study was conducted among Malaysian young educated women; therefore, its findings cannot be represented from the

whole Malaysian female population. Secondly, this study used self-administered questionnaire with no objective measure to assess the women.

## CONCLUSION

This study showed that the current questionnaire is a valid and reliable tool for evaluating knowledge of breast cancer screening and breast cancer and beliefs toward breast cancer screening among Malaysian women. This questionnaire can be used by health care planners and providers to understand level of knowledge and beliefs of Malaysian women toward breast cancer before planning appropriate intervention. It is recommended that the instrument be tested on culturally-diverse populations. The results of such tests would strengthen the generalizability of the current findings.

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## **Psychological Risk Factors for Postnatal Depression: A Prospective Study of Iranian Low Income Primigravidae at Health Care Centres**

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### **ABSTRACT**

Postpartum depression increases the rate of complications for mother and infant. Few studies on postpartum depression have been undertaken on pregnant women with a low socioeconomic status. The present study aims to recognize the prevalence of postpartum depression and association with risk factors in low socioeconomic populations. Predicting risk factors during pregnancy for postpartum depression are so important. 451 low income pregnant women referred to health care centres, participated in a prospective study. Questionnaires covered demographics and, obstetrics and psychological characteristics were collected by interviews. Edinburgh Postnatal Depression Scale (EPDS) was used to define depression in pregnancy as a sum score  $\geq 10$  and in postpartum as a sum score  $\geq 13$  at gestational week 28. The mean participant age was 25 years. Most of them

had moderate perceived stress (61%), low self-esteem (63.2%), low perceived social support (67.6%), and low quality of marital relationship (43.5%). Fear related to childbirth was high in more than half of respondents (50.8%) and 58.9% had prenatal depression. The frequency of postnatal depression was 39% in participants. Those with postpartum depression had lower self-esteem scores, higher perceived stress and higher childbirth related fear in both

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mothers with postpartum depression and mothers without it. The prevalence of depression in pregnancy was higher in low socio-economic primigravida from Iran. The increased risk persisted after adjustment for risk factors.

*Keywords:* Low income, postpartum depression, psychological characteristics, risk factors

## INTRODUCTION

Many women enjoy emotions of motherhood and the roles associated with it. Women usually experience positive feelings and emotions during Pregnancy and childbirth. However, some women consider childbirth as a stressful life event. Adaptation to pregnancy, delivery, and new born care are the some of the most critical and stressful events in a woman's life (Lashkaripour, Noor, Hokmabadi, Sajjadi, & Sarasiyabi, 2012)

One of the most important life stages of a woman is the postpartum period in which the precise diagnosis and treatment of psychological disorder is necessary (Meçe, 2014). Postpartum depression (PPD) is one of the most common debilitating mental disorders in women after giving birth. Postpartum depression is a mental problem which occurs in most cultures around the world (Mounce, 2011).

Postpartum Depression is known by the American Psychiatric Association "as a major depressive disorder, characterized by depressive mood symptoms such as appetite changes, insomnia, decreased energy, low self-esteem, cognitive difficulties and anxiety. Major depressive disorder

with peripartum onset can have their onset either during pregnancy or in the 4 weeks following delivery. Postpartum depression can continue further than one year after giving birth and have a long lasting disadvantageous impact on the woman, her child and the family in most cultures. Fifty percentage of postpartum major depressive episodes actually begin prior to delivery. Prospective studies have demonstrated that mood and anxiety symptoms during pregnancy, as well as the "baby blues" increase the risk for a postpartum major depressive episodes" (American Psychiatric Association, 2013). Postpartum blues happen in most of women after childbirth. If symptoms continue these feelings of sadness and sometimes anxiety can change into postpartum depression and in severe cases, postpartum psychosis (Lindahl, Pearson, & Colpe, 2005).

Postpartum depression is a major public health concern between 5% and 60.8% worldwide, although prevalence of mothers with postpartum depression was 10%-15% in developed high income countries. The prevalence of postpartum depression in Korea was reported 36.3% and 36.7%, 2 weeks and 6 weeks after delivery respectively. The prevalence of postpartum depression is about 8-35% depending on time and tools of measurement (Meçe, 2014)

The variability of prevalence of postpartum depression was demonstrated from almost 0% to 60% in review of 143 studies in 40 countries (Deng, Xiong, Jiang, Luo, & Chen, 2014). A study conducted in Iran showed the prevalence of postpartum

depression was 34.8% and another study reported the prevalence as 40% -16% (Nikpour et al., 2012).

In a meta-analysis in Iran from 41 studies, the prevalence of postpartum depression in unplanned pregnancy was 43% and 45% in mothers with history of depression. The varied incidence of postpartum depression might be because of different diagnostic criteria, time period, assessment tools, genetic vulnerability and differences in socio-demographic and cultural background (Veisani, Delpisheh, Sayehmiri, & Rezaeian, 2013). Therefore, the study of postpartum depression prevalence and risk factors across diverse cultures may help detect women at risk and provide suitable strategy for early intervention.

This disorder reveals as symptom like: sadness and crying, sleep disorders, changes in appetite, fear of injury, serious concerns about the baby, mood swings, lack of interest in daily activities, sense of doubt, difficulty in concentrating, thoughts of death and suicide (Beck, 2002). Feelings of disappointment in severe cases of postpartum depression can be life threatening and increase the likelihood of suicide; it causes 20% of maternal deaths in the time after giving birth. Furthermore, 36% of these women had fear of hurting the baby, 34% had low level of attachment to the baby and unexpectedly, in postpartum psychosis, child suicide intention has been reported. These signs have severe consequences on family health (Hung, Lin, Stocker, & Yu, 2011).

Therefore, vulnerable pregnant women for postpartum depression should be

identified before childbirth to receive proper postnatal care and treatment. However, the development of screening programs as well as designing evidence-based prevention programs requires principled collection of scientific documentations (Ghaedrahmati, Kazemi, Kheirabadi, Ebrahimi, & Bahrami, 2017; Veisani et al., 2013).

Mental disorder is a major public health problem. After coronary heart disease, depression will be second cause of experienced disability by 2020. Postpartum psychosis has a range of estimated incidences of one to four cases per 1000 deliveries (Jamshidimanesh, Tehrani, Hosseini, Alizadeh, & Lahoni, 2013).

Recent studies suggest that perinatal psychological disorders do not depend to culture: these affect pregnant women in every culture and from every socioeconomic characteristic (Oppo et al., 2009).

A lower socioeconomic status and obstetrics and medical history are associated with increased rates of postpartum depression. The relationships with her mother and father, marital satisfaction/relationship, marital status, social support self-esteem; life stress, and history of previous depression were all identified risk factors which have already been discussed (Beck, 2002; Oppo et al., 2009). However, having an unwanted unplanned pregnancy, multiparity, maternity blues, neonate care stress (health problems in infant) and infant temperament were also found to be predictors of postpartum depression (Lara, Navarrete, & Nieto, 2016; Veisani et al., 2013).

Postpartum depression can be due to some background factors such as; history of depression and postpartum depression; depression, anxiety and sadness during pregnancy and difficult labor and delivery (Earls, 2010). Fear of childbirth, caesarean section and first pregnancy were other robust predisposing factors for postpartum depression (Räisänen et al., 2013). In severe cases, postpartum depression can result in with suicide and infanticide. The main reasons to early detection and managing postpartum depression are high prevalence, many complications, and convenience treatment of postpartum depression (Siu, Leung, Ip, Hung, & O'hara, 2010). Postpartum depression may occur due to significant family distress as well as stress in marital relationship. In severe cases, postpartum depression can result in suicide and infanticide. High prevalence, complications, and convenient treatment of postpartum depression are the main factors leading to early detection and management of the disorder (Siu et al., 2010).

Based on Iranian studies about postpartum depression, women keep their feelings and quiet instead of declaring their problems so their depressive symptoms are under-reported, therefore, the screening and diagnosis of postpartum depression by healthcare providers are mainly necessary (Veisani et al., 2013).

Studies aiming to determine the prenatal risk factors for postpartum depression in low economic Iranian women are comparatively scarce and old. The results of this study serve as a plan to change health policy in perinatal psychiatric services and mental health service during pregnancy.

## MATERIALS AND METHODS

This survey was a cross-sectional study in primigravidae which refers to community health care centres for prenatal care in Hamadan city. Four community clinics were selected randomly by simple random sampling in Peri-urban area. Firstly all eligible pregnant women were selected in each health care centres; secondly the potential participants were selected randomly by stratified sampling.

### Participants

The sampling population was all primigravidae in a low socioeconomic level in peri-urban community who referred to the health care centres that provide the antenatal services.

620 participants were assessed, 415 of them matched with the inclusion criteria. Participants' eligibility was determined through inclusion criteria that identified primigravidae who were between 18-35 years of age, gestational age between 28-32 week of pregnancy, and completed primary school and could fill the questionnaires related to this study. The participants who had a history or present medical and psychiatric disorders were excluded in this study. Current obstetric problem is in the exclusion criteria.

Eligible primigravidae who decided to contribute to the study signed a written consent form. From this total, 415 (80%) were assessed during pregnancy and through 6 months postpartum.

## **Instruments**

Participants completed a questionnaire including socio-demographic, psychological and pregnancy-related questions.

### **Self-esteem**

Primigravidae filled the Rosenberg Self-Esteem Scale (RSES) which was translated and validated to Farsi (Shapurian, Hojat, & Nayerahmadi, 1987).

The Rosenberg Self-Esteem Scale was made of Ten items with Likert scales from 0-3 (strongly disagree to strongly agree), with higher whole scores showing greater self-esteem.

### **Perceived Stress**

The Perceived Stress Scale (PSS) is an assessment tools to show stress in one's life. It was translated and validated to Farsi (Maroufizadeh, Zareiyani, & Sigari, 2014).

The PSS consists of 10 items and five-choice Likert scales from (1-5) 'very often' to 'never'. Higher full scores show more individually perceived stress.

### **Marital Relationship Quality**

The Revised Dyadic Adjustment Scale (RDAS) assesses marital satisfaction. This scale was translated and validated to Farsi (Isanezhad, Ahmadi, & Farajzadegan, 2012).

The RDAS is made of 14 items and a 6-choice response from (0-5) from completely true to not true at all. Higher complete scores present better marital satisfaction.

### **Perceived Social Support**

The Multidimensional Scale of Perceived Social Support (MSPSS 42) was applied to assess perceived social support. The MSPSS was translated and validated to Farsi version (Bagherian-Sararoudi, Hajian, Ehsan, Sarafraz, & Zimet, 2013).

The perceived support was evaluated by 12 items that came from important people, friends and family. Replies are a 7-point (from 1-7) Likert scale from 'very strongly disagrees' to 'very strongly agree'. Greater total scores present stronger indications of social support.

### **Fear Related to Childbirth**

Fear was assessed through the revised version of the Fear-of-Childbirth Questionnaire (Cronbach's alpha 0.72). The original questionnaire was revised to suit a Finnish population by Saisto 2001. The 30-item instrument was used for data collection on fear in pregnancy. This questionnaire was revised from a 10- item questionnaire of Saisto 2001 which consisted of shared fears during pregnancy (Saisto, Salmela-Aro, Nurmi, & Halmesmaki, 2001). This questionnaire included general fear, fears regarding the health and life of the baby, fear of childbearing process (pain, reproductive system injuries, death during childbearing, failure to keep control during childbirth, inability to give birth and lack of trust in the staff assisting in childbirth) becoming a mother, newborn's care, or adjustment in marital and family relations due to childbirth (Matinnia et al., 2016)

To improve the scale precision more than two answers (Yes and No), the Likert Scale was chosen about fear related to childbirth. The range of score was from 0-150 for 30 items. The greater the score, the higher the fear related to childbirth (Faisal, Matinnia, Hejar, & Khodakarami, 2013; Matinnia et al., 2015).

### **Edinbuurgh Postnatal Depression Scale (EPDS)**

The questionnaire was designed to detect depression from 6 weeks in postpartum. It has 10 items. The score of the Edinburgh Scale is between 0 and 30, and score 12 and more are considered postpartum depression. In the present study, Cronbach's alpha coefficient for the Edinburgh questionnaire was 0.70.

Validity of this questionnaire has been evaluated in several countries and its reliability was also confirmed (Alpha was 88%) by Cox, Holden, & Sagovsky (1987).

An Iranian study in 2007 on 100 women was used to determine postpartum depression and to determine the reliability of this questionnaire. The Cronbach's alpha was 77% and 86% in 6-8 weeks and 12-14 weeks of postpartum respectively.

In this study, the score of 13 and above was considered postpartum depression, and depressed mothers were referred to a psychiatrist to confirm their depression and receive effective treatment and follow up. The sensitivity of this measure ranges from 68 to 85%, and the specificity varies from 78 to 96% when compared to a diagnosis established through a diagnostic interview (Cox et al., 1987).

### **Analysis of the Data**

The socio-demographic and psychological characteristics of all applicants were reported. A binary logistic regression analysis was run with the psychological factors (RSE, PSS, RDAS, MSPSS, fear associated with childbirth, prenatal postpartum depression) to predict the best risk factor for depression. The level of significance was fixed at 0.05 for all tests. The SPSS version 21.0 was used to analysis the data.

### **RESULTS**

Characteristics of the participants: The range of primigravidae age was between 18-34 years and the average age was 25 years. 35.7% (161) of participants had secondary educational level and were Muslim and Fars, 66.5% (300) and 92.1% (415). Most of the mothers 61.2% (276) were not employed (Housewife) and 43.9% of their husbands were non-Professional employees.

The majority 43.6% (197) of family income was between 5,000,000-1,000,000 Rials (one Rial=0.00048 USD). 36% (162) of participants had access to insurance (Table 1).

More than half of them 67.2 % (303) had planned pregnancies, and 32.8% (148) had unwanted pregnancies. More than half (54.8%) had vaginal delivery and only one third (33%) of them had chosen elective caesarean section and 12.2% had emergency caesarean section. The majority of them 78.5% were satisfied with their baby's gender (Table 2).

Most of the primigravidae had moderate perceived stress (61%), low

self-esteem (63.2%), low perceived social support (67.6%) and low quality of marital relationship (43.5%). Fear related to childbirth was high in majority

of respondents (50.8%) and 58.9% had prenatal depression. The frequency of postnatal depression was 39% in participants (Table 3).

Table 1  
*Socio-demographic characteristics of participants (N = 451)*

Socio-demographic	n(%)
Age	
18-22	106 (23.5)
23-26	195(43.2)
27-30	123(27.3)
>30	27(6)
Ethnicity	
Fars	300(66.5)
Kord	37(8.2)
Lor	25(5.5)
Tork	87(19.2)
Education	
Primary School	81(18)
Secondary School	161(35.7)
High School Diploma	95(21.1)
Bachelor Degree or Higher	114(25.3)
Occupation	
Non Professional Employee	143(31.7)
Self-Employed	32(7.1)
Housewife	276(61.2)
Income(Rials/month)*	
≤5,000,000	104(23.1)
5,000,000– 10,000,000	197(43.6)
10,000,000– 15,000,000	107(23.7)
≥15,000,0000	43(9.6)
Insurance	
Yes	162(36)
No	289 (64)

Table 2  
*Obstetric characteristics of participants (N = 451)*

Obstetric Characteristics	n(%)
Plan of pregnancy	
Planned pregnancy	303(67.2)
Unplanned pregnancy	148 (32.8)
Mode of delivery	
Vaginal delivery	149 (33)
Elective Caesarean section	247 (54.8)
Emergency Caesarean section	55 (12.2)
Satisfaction of the baby gender	354(78.5)

Table 3  
*Psychological characteristics of participants (N = 451)*

Psychological Characteristics	n(%)
PSS	
Mild	115(25.5)
Moderate	61(13.5)
Severe	275(61)
RSES	
Low	258(63.2)
High	166(36.8)
MSPSS	
Low	146(32.4)
High	308(67.6)
RDAS	
Low	196(43.5)
Moderate	132(29.3)
Good	123(27.3)
Fear related to pregnancy	
Low	109(24.2)
Moderate	113(25.1)
High	229(50.8)
Prenatal Depression	
Yes	280(58.9)
No	171 (41.1)
Postnatal Depression	
Yes	275(61)
No	176(39)

**Table 4**  
*Logistic regression analysis of socioeconomic and obstetric characteristics for postpartum depression*

Variables	B	S.E	Wald	P-value	OR	CI 95%
Age	-2.11	1.833	3.7	0.05	1.15	1-1.32
Secondary school (reference)			4.31	0.23		
High School Diploma	0.1	0.5	0.04	0.84	1.11	0.42-2.93
Bachelor Degree or Higher	0.9	0.63	2.07	0.15	2.58	0.74-9.04
Housewife(reference)			9.87	0.02*		
Non Professional Employee	1.81	0.87	4.34	0.04*	6.38	1.1-33.19
Self-Employed	0.73	0.75	0.96	0.33	1.8	0.48-9.05
Education						
Primary School			5.051	0.168		
Secondary School	0.601	0.303	3.938	0.04*	1.825	1.01-3.3
High School Diploma	0.222	0.371	0.358	0.55	1.248	0.6-2.58
Bachelor Degree or Higher	0.211	0.368	0.328	0.57	1.235	0.6-2.54
Husband Age	0.13	0.08	2.5	0.11	1.13	0.97-1.33
Unemployed (reference)			1.58	0.66		
Non Professional Employee	0.2	0.85	0.01	0.81	1.22	0.23-6.43
Self-Employed	0.64	0.82	0.68	0.44	1.9	0.38-9.48
Income						
>12,000,0000 (reference)			3.56	0.42		
<4,000,000	-1.71	0.59	8.53	<0.001	5.54	1.76-17.5
4,000,000– 8,000,000	-0.816	0.32	7.37	0.007	2.256	1.255-4.0
8,000,000– 12,000,000	-0.36	0.56	0.4	0.31	0.7	0.23-2.12
Having Medical Insurance	-0.18	0.47	0.14	0.71	1.84	0.34 -2.11
Unplanned pregnancy (reference)			1.62	0.02		
Unplanned pregnancy	-2.7	0.82	10.94	0.001*	0.07	0.01-0.33
Mode of delivery						
Vaginal delivery(reference)			3.67	0.05		
Elective Caesarean section	0.35	0.17	4.46	0.03*	1.41	1.03-1.96
Emergency Caesarean section	0.6	0.19	10.38	0.001*	1.82	1.26-2.6
Satisfaction of the baby gender	0.35	0.18	3.63	0.06	1.42	0.99-2
Constant	-17.89	5.47	10.69	0.001	0.000	

**Table 5**  
*Logistic regression analysis of psychological characteristics for postpartum depression*

Variables	B	S.E	Wald	P-value	OR	CI 95%
PSS	-0.45	0.13	11.5	0.001	0.96	0.93-9.81
RSES	0.24	0.59	0.165	0.68	1.024	0.91-1.15
MSPSS	0.35	0.17	4.46	0.03	1.41	1.03-1.96
RDAS	0.31	0.18	3.09	0.08	1.37	0.97-1.93
Fear related to pregnancy	0.01	0.07	10.67	<0.0001	1.82	1.26-2.6
Prenatal Depression	0.06	0.1	12.4	<0.0001	2.14	1.69-2.71
Constant	-15.56	4.81	10.48	<0.001	0.000	

## DISCUSSION

A total (62.3%) of the 451 primigravidae had postpartum depression. The significant result of the current study was that those who with postpartum depression also reported upper levels of perceived stress and had lesser self-esteem.

The research questions included the prevalence and aimed to determine the predictive risk factors for postpartum depression. The prevalence of postpartum depression was 39% in primigravidae with low socioeconomic status. The prevalence was reported between 5% and 60.8% worldwide. Based on the results of systematic literature reviews, the postpartum depression prevalence is about 23% in Korean pregnant women (Ryu, Kim, & Lee, 2010), during the first month after childbirth 6.5-12.9% and the third month 19.2% (Youn & Jeong, 2011),

In another systematic review and meta-analysis of studies about postpartum depression, based on the Beck depression inventory (BDI) and Edinburgh Postnatal Depression Scale (EPDS), the prevalence of postpartum depression in Iran was 24.3% (95% CI: 21.0–27.7) and 25.3% (95% CI: 22.7–27.9), respectively (Veisani et al., 2013). This prevalence is lower than findings of the current study; this can be due to differences in socioeconomic level and different tools of measurement. This prevalence, however, is highly possible to be an underestimation. The studies showed that about 50% of women after childbirth with postpartum depression do not report

any negative feelings arising from it nor do they complain about their emotions to health care provider (Youn & Jeong, 2011).

**Predicting postpartum depression:** Binary logistic regression analysis was run to predict the postpartum depression. All statistical analysis is shown in Table 3. In current study postpartum depression was predicted more in participants who were nonprofessional employees, had low income, unplanned pregnancy and elective or emergency caesarean section while participants' age, level of education, husband's age and job and medical insurance were excluded from the equation. Postpartum depression also was predicted by higher perceived stress, lower perceived social support, and higher fear related to pregnancy and prenatal depression, although self-esteem and quality of marital relationship were omitted from the equation of prediction postpartum depression.

Some of the socio-demographic factors (age, educational level, occupation, income) which were non-significant or non-strong predictors in previous postpartum depression were significant in the current study (Lara, Navarro, & Navarrete, 2010; Robertson, Celasun, & Stewart, 2008).

There was not a significant association between women's age and postpartum depression. Most previous studies had shown this correlation (Azamani et al., 2016). Age had a significant relationship with postpartum depression in Asian and African surveys (Shrestha, Pradhan, Tran, Gualano, & Fisher, 2016) but many studies showed no significant relationship. These contradicting

results indicated the need for further studies to investigate relationship between the mother's age and postpartum depression in women with low socioeconomic level in developing countries (Azamani et al., 2016; Pereira & Passos, 2015).

The most noticeable factor was educational level which significantly raised the risk of postpartum depression. These results were consistent with the findings of studies in Brazil (Alvarado et al., 2000; Silva, Valongueiro, de Araújo, & Ludermir, 2015) and studies from Latin America (Almanza-Muñoz, Salas-Cruz, & Olivares-Morales, 2011; Alvarado et al., 2000; deCastro, Hinojosa-Ayala, & Hernandez-Prado, 2011) and postpartum women in some other developing countries (Lara et al., 2016). As educational level is a significant predictor of community health, it shapes occupation and income level as well, which are related to access to health care. The educational levels have an effect on knowledge, cognitive skills and also analytical abilities, coping with stress (Cutler & Lleras-muney, 2006).

The frequency of postpartum depression in housewife women was more than employed women in the current study. The result of a study in Malaysia is also consistent with the present study (Lara et al., 2016).

In this study, the relationship between mode of delivery and postpartum depression was significant. In caesarean delivery, the rate of postpartum depression was more than vaginal delivery. However Chaya and colleagues showed that postpartum

depression in vaginal delivery was higher than caesarean section (Matinnia et al., 2017; Mazaheri et al., 2014). On one hand, some studies showed that postpartum depression after caesarean delivery was higher than normal delivery (20, 28), on the other hand, the results of the Iranian study reported no association between the postpartum depression and the mode of delivery.

Risky pregnancy is also associated with an increased risk of postpartum depression. These include situations that cause emergency caesarean section or hospitalization during pregnancy (Ghaedrahmati et al., 2017).

The prevalence of postpartum depression was higher for emergent caesarean delivery. The most important duties of health care provider and health policy makers are planning appropriate prenatal education regarding an informed choice of the delivery type and any complications of each method. They must educate pregnant women and increase their knowledge and change their attitudes about safe delivery (Haque, Namavar, & Breene, 2015).

In current study the prenatal depression was a significant predictor for postpartum depression. In contrast the study on Chinese women (2004) who struggled with their mother-in-laws suggested that low quality in marital relationship, past history of depression and prenatal depression were not significant in postnatal depression (Leigh & Milgrom, 2008) The findings of Bonnie was consistent with current study which showed the risk of postpartum

depression was increased by having past history of depression (Siu et al., 2010). The review study also recognised prenatal depression as common during pregnancy and it was expected to be a significant risk factor for postpartum depression. Reports are shown that prenatal depression is associated with postpartum depression (Place, 2013). Not surprisingly, findings in most studies are parallel; the risk factors for postpartum depression included a past history of psychological disorders, prenatal depression, stress and anxiety, a poor marital relationship, low social support, and traumatic life events (Rubertsson, Wickberg, Gustavsson, & Rådestad, 2005).

Although many studies in different cultures mentioned depression in pregnancy as a strong predictor of postpartum depression (Sherin, Yusuff, Tang, Binns, & Lee, 2014) screening of depression during pregnancy is not efficient and is only occasionally arranged for pregnant women in the prenatal care centres in Asian countries such as Iran. In our study, 451 women 176 (39%) were depressed during their pregnancy. Routine and precise screening for prenatal depression and referral to mental health services for treatment should be included in the routine maternal care with the purpose of preventing postpartum depression.

Two meta-analyses highlighted prenatal depression, marital dissatisfaction, insufficient social support and life stress as major risk factors (Hale et al., 2010). Another research showed that marital dissatisfaction and lack of social support were risk factors for depression during

pregnancy and in the postpartum period (Leigh & Milgrom, 2008; Tzilos, Zlotnick, Raker, Kuo, & Phipps, 2012).

## CONCLUSION

Although Asian women were more likely to be depressed, have a low self-esteem and high perceived stress scores and fear related to childbirth, a history of prenatal depression and fear related to childbirth were independent risk factors for depression. Data also suggests that a low level of social support may exacerbate the increased risk observed in low income mothers. However, unmeasured variables such as cultural factors may also contribute to the risk status.

In summary, our findings showed the potential for improving mental health among low income pregnant women by improving socioeconomic and psychological conditions and facilitating integration.

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## **The Usage of Sexual Internet Media and Sexual Behaviour among Sexually Experienced Adolescents in Malaysia: Sexual Intention as a Mediator**

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### **ABSTRACT**

This study examines the relationships between the use of sexually explicit material, sexual intention, and sexual behaviour in a sample of 189 sexually experienced adolescents (aged 16-17) in Malaysia. Additionally, this study investigates the mediating role of sexual intention on the relationship between the use of Sexual Explicit Internet Media (SEIM) and sexual behaviour. A self-administered questionnaire focusing on the use of SEIM scale, Youth Pre-coital and Sexual Intentions Scale, and Sexual Behaviour Assessment measured adolescents' use of SEIM, sexual intention, and sexual behaviour. The results demonstrate that the use of SEIM positively correlates with adolescents' sexual intention and sexual behaviour. Increasing engagements in sexually-related behaviour reveal an increase in sexual intentions. Findings also denote that higher exposure to SEIM promotes sexual intention, which in turn increases engagement in sexually-related behaviour. In the attempt to control sexual arousal among adolescents, prevention and intervention

programmes which deal with sexuality should consider the role of Internet media and the development of healthy cognitive processes.

*Keywords:* Adolescents, sexual behaviour, sexual intention, sexual internet media

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## INTRODUCTION

Adolescence, being the second decade of life, is an increasingly critical stage in the lifespan of individuals, especially from the health and social perspectives (World Health Organisation [WHO], 2005). Rapsey and Murachver (2006) defined adolescence as the period where individuals went through a series of rapid physical development, puberty, maturation of reproductive capacity, social and cognitive developments, as well as the attainment of rights and responsibilities of adulthood. Adolescence also relates to a time of substantial turmoil and rebellion, where adolescent sexual behaviour is regarded as problematic (Rapsey & Murachver, 2006). In Malaysia, issues such as premarital sexual intercourse, sexually transmitted diseases, unwanted and unsafe pregnancies, and abortions (Low, 2009; Yaacob et al., 2009) related to adolescents' sexuality are increasingly gaining public concern. According to World Health Organisation [WHO], (2009), there was increased involvement in sexual intercourse among adolescents under the age of 18 years. A statistical report from Royal Malaysia Police recorded 446 cases of baby dumping between the year 2010 and September 2014 (Razan, 2015). Additionally, statistics from the Malaysian Ministry of Health recorded 3980 cases of birth out of wedlock involving adolescents aged between 10 and 19 years old in 2014 (Razan, 2015).

During the developmental transitions period, adolescents tend to seek information

on sex from other sources, rather than solely relying on their parents (Chapin, 2000). Hence, there is a possible link between the influence of media and adolescents' sexual behaviour (Brown, L'Engle, Pardun, Guo, Kenneavy, & Jackson, 2006; Brown & L'Engle, 2009; L'Engle, Brown, & Kenneavy, 2006; Lo & Wei 2005; Zhang & Jenmott, 2015). Internet media provides a broad source of information for the public. The use of Internet media among adolescents becomes an important factor in determining adolescents' behaviour. Furthermore, Teague, Mackenzie and Rosenthal (2009) discovered that public, especially adolescents accessed explicit media on the Internet to obtain sexual gratification, sought romance, relieved boredom, as well as to satisfy their curiosity.

Among adolescents, sexually explicit Internet material (SEIM) serves two important functions, whereby, it enables adolescents to acquire sexual information, and it also provides them with erotic materials. Using the media to acquire and view sexual information may help adolescents who are shy and uncomfortable to discuss their uncertainties on sexually-related questions with the public or even with their peers. As the media provide numerous and convincing portrayals of sex as fun and risk-free, it becomes a preferred option among adolescents. Newly available technologies such as cell phones and digital cameras have made the sexually-related material more easily accessible for adolescents nowadays, as compared to

previous generations (Brown & L' Engle, 2009; Shek & Ma, 2016). A study conducted in Taiwan by Lo and Wei (2005) indicated that Taiwanese adolescents tend to use the Internet more than other traditional sources like magazines, books, and comics to seek out pornography. The availability and accessibility of sexually-related media such as pornography and erotica, which are designed to arouse sexual feelings, widely serve as sources of sexual information, hence, becoming a norm among teenagers. The easy availability of sexual contents on media may further influence adolescents into imitating ideas and characters from the media and practise them in real (Brown & L' Engle, 2009).

On the topic of sexual behaviour, sexual intention appears to play a crucial role in explaining the adolescents' sexual behaviour. Sexual intention, defined as the motivational elements that influence sexual behaviour, indicates how hard people are willing to try, and how much of an effort they are planning to exert in order to engage in sexual behaviour (Ajzen, 1991). Various studies (Atwood et al., 2012; Busse, Fishbein, Bleakley, & Hennesy, 2010; Fingerson, 2005; Hull, Hennesy, Bleakley, Fishbein, & Jordon, 2011; Miller, Norton, Fan, & Christopherson, 1998; Sieverding, Adler, Witt, & Ellen, 2005) denoted the links between sexual intentions in predicting adolescents' sexual behaviour. Hypothetically, adolescents with higher intentions to engage in sexual behaviour tend to engage in sexually-related behaviour very soon.

Studies by Miller et al. (1998), and L' Engle and Jackson (2008) showed significant mediation effect of sexual intention in relation

to the influence of sexual socialisation and sexual behaviour among adolescents. L' Engle and Jackson (2008) examined the influences of perceived socialisation (parent, school, peers and media) on adolescents' cognitive susceptibility to initiating sexual intercourse, and the transition to intercourse two years later among 854 adolescents aged between 12 and 14 years old. Although cognitive susceptibility does not directly illuminate sexual intention, it, however, refers to the general sense of readiness for intercourse, the likelihood to initiate first coitus in the near future, and an increased tendency to engage in sexual intercourse when presented with an opportunity; which then partly supports the construct of the proposed mediation model. Results of the study revealed that cognitive susceptibility significantly mediated the relationship between the use of sexually explicit media and adolescents' sexual intercourse. L' Engle and Jackson (2008) highlighted that media socialisation influences teens' sexual behaviour not only directly, but also indirectly through the adolescents' cognitive susceptibility. Miller et al. (1998) stated that sexual intention appeared to be a mediating variable in the relationships between the quality of parent-adolescent communication, sexual value, age, pubertal development timing, and adolescents' sexual behaviour. Miller et al. (1998) further explained that the quality of parent-adolescent communication did not directly affect the adolescents' sexual behaviour, but the communication quality might be indirectly related to adolescents' sexual behaviour through

sexual intention. Furthermore, social cognitive theory (SCT) (Bandura, 1989) supports the mediation role of personal cognitive factors on the relationship between the environmental factors and the adolescents' sexual behaviours. According to SCT, both environmental and personal cognitive factors can explain behavioural outcomes. The social cognitive theory also explained behavioural outcomes in both direct and indirect relationships through personal cognitive factors. Additionally, past studies have also treated sexual intention as a mediator (L' Engle & Jackson, 2008; Miller et al., 1998).

This study aims to determine the relationship between the use of SEIM, sexual intention, and sexual behaviours among sexually experienced adolescents in Malaysia. Specifically, this study addressed:

1. The relationship between the use of SEIM, sexual intention, and sexual behaviours among adolescents in Malaysia.
2. The mediating role of sexual intention on the relationship between the use of SEIM and sexual behaviours among adolescents in Malaysia.

## **MATERIALS AND METHODS**

### **Study Sample**

A total of 189 sexually experienced adolescents (92 males and 97 females) aged 16 and 17 years old, with the mean age of 16.75 (SD=0.44) were included in the study. In terms of ethnicity, 46% of the respondents were Malay, followed by 42.3% Chinese, and 11.7% Indian. The respondents were

recruited using the convenience sampling method, whereby, respondents frequenting areas such as tuition centres, recreation parks, restaurants, nearby school area, and shopping complexes were conveniently invited to take part in the study. Inclusion and exclusion criteria were practised when selecting respondents. As an inclusion criterion, adolescents had to be between the ages of 13 and 18 years. Adolescents aged below 13 and those above 18 years on their last birthdays were excluded from the study. A total of 551 adolescents were recruited, of which 189 sexually active adolescents were filtered and selected for this study. This study was a part of an extensive study that was conducted on sexual socialisation influences and sexual behaviour among adolescents in Malaysia. Respondents of the study were selected from three metropolitan and urbanised cities in Peninsular Malaysia, namely Penang (46.6%), Kuala Lumpur (31.2%), and Johor Bahru (22.2%). Evidence supported the popular notion that adolescents in urban cities have more opportunities to gain access to a large group of peers and are often subjected to less parental control and supervision due to dual working parents (Boislard & Poulin, 2011). This condition gives urban-city adolescents increased opportunities to access external socialisation agents that could influence them, both positively and negatively.

### **Procedure**

Data was collected using paper-and-pencil self-administered questionnaires.

Respondents were informed of the purpose of the study and assured of their confidentiality. The respondents who had agreed to participate in the study were requested to sign the consent form. They were then provided with a questionnaire and asked to respond to all the questions in the questionnaire based on their own understanding and experiences. It took them about 30 minutes to complete the questionnaire. All the administration measures were conducted in the Malay language, which is the Malaysian national language and was widely understood and used by Malaysian citizens. In order to ensure optimum comprehension, the back-translation procedure from English to the Malay language was utilised. The original English version of the questionnaire was first translated into Malay by a language expert who was proficient in both languages, as well as knowledgeable in psychology. Next, the Malay translated version of the questionnaire was then translated into English without referring to the original English version by another language expert with psychology knowledge. Finally, both the original and the translated English questionnaires were compared to check for consistency in translation.

### Measures

**Use of SEIM.** Adolescents' exposure to SEIM was measured based on five items (Peter & Valkenburg, 2006). Respondents were required to respond to questions about how often they had intentionally viewed: (a)

pictures with clearly exposed genitals; (b) movies with clearly exposed genitals; (c) pictures in which people were having sex; (d) movies in which people were having sex; and (e) erotic content sites within the past six months. The response for the 5-item scale ranged from 1 (never) to 7 (several times a day). A composite score was computed by summing up the scores for the 5-item scale. Higher scores indicated more frequent exposure to SEIM.

**Sexual Intention.** Adolescents' intention to engage in sexual behaviour was measured by two items using the Youth Pre-coital and Sexual Intentions Scale (Ball, Pelton, Forehand, Long, & Wallace, 2004). Respondents were asked to respond to "How many times have you thought of touching a boy's/ girl's private parts or having a boy/ girl touch your private parts?" and "How many times have you thought of having sex with a boy/girl?". The respondents responded to the items using a 4-point scale ranging from 1 = never, 2 = sometimes, 3 = most of the time, and 4 = always. A higher total score indicated higher intentions to engage in sexual behaviour.

**Sexual Behaviour.** The adolescents' sexually-related behaviour was assessed using Sexual Behaviour Assessment (Yaacob et al., 2009). The respondents were required to respond to four items in the scale that was intended to measure the adolescents' frequency of involvement with a particular sexual behaviour within the last 12 months. Each respondent was also asked how often he/she engaged in kissing, love touching, and sexual intercourse. The

response categories were from 1 (never), 2 (sometimes), 3 (most of the time), and 4 (always). A higher score meant higher frequency of involvement in that particular sexual behaviour.

**Data Analysis.** Data from this study was analysed using Predictive Analytics Software (PASW version 18) and Analysis of Moment Structures (AMOS version 18), with maximum likelihood estimation. While running the data, several stages of analyses were conducted. Firstly, a confirmatory factor analysis (CFA) was conducted to examine the psychometric properties of sexual behaviour and the use of SEIM assessments. In evaluating the goodness of fit for the model of adolescents' sexual behaviour, the Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI) with a cut-off value of .95 or above were used. The Root Mean Square Error of Approximation (RMSEA) with a cut-off value of less than 0.06 indicated a good fit (Hu & Bentler, 1999). Due to the small sample size, the chi-square value with a cut-off value of less than 5 was reported to further support the goodness of fit of a model (Hu & Bentler, 1999).

A Pearson correlation analysis was also conducted to determine the relationship between the study variables. The mediation analysis was also tested by following the steps recommended by Baron and Kenny (1986).

## RESULTS

### Confirmatory Factor Analyses

The CFA was conducted to test the psychometric properties of the use of SEIM and sexual behaviour scale. The single factor measurement model for the use of SEIM provided a good fit to data:  $\chi^2(2, N = 189) = 4.340, p = 0.114$ ; GFI = 0.991; AGFI = 0.932; CFI = 0.997; TLI = 0.987; RMSEA = 0.079; CMIN/DF = 2.170, after correlating the error of items based on the modification indexes. The reliability of the scale was good ( $\alpha = 0.87$ ).

In the case of sexual behaviour, the single factor measurement model provided a good fit to data:  $\chi^2(2, N = 189) = 2.163, p = 0.339$ ; GFI = 0.994; AGFI = 0.972; CFI = 0.999; TLI = 0.999; RMSEA = 0.021; CMIN/DF = 1.081. The reliability of the scale was good ( $\alpha = 0.82$ ).

Furthermore, the model was approached by including variables as proposed in the mediation model. The model provided a good fit to the data:  $\chi^2(30, N = 189) = 47.246, p = 0.024$ ; GFI = 0.954; AGFI = 0.916; CFI = 0.988; TLI = 0.982; RMSEA = 0.055; CMIN/DF = 1.575.

The results of the study indicated significant relationships between the use of SEIM, sexual intention, and sexual behaviour (Table 2). Specifically, the use of SEIM ( $r = 0.567, p < 0.001$ ) was positively correlated with sexual intention. Both the use of SEIM ( $r = 0.460, p < 0.001$ ) and sexual intention ( $r = 0.487, p < 0.001$ ) were positively and significantly related to sexual behaviour.

Table 1

*The relationship between the use of SEIM, sexual intention and sexual behaviour*

Scale	GFI	AGFI	CFI	TLI	RMSEA	CMIN/DF	<i>p</i>
Use of SEIM	0.991	0.932	0.997	0.987	0.079	2.170	0.114
Sexual Behaviour	0.994	0.972	0.999	0.999	0.021	1.081	0.339
Overall model	0.954	0.916	0.988	0.982	0.055	1.575	0.024

Table 2

*The role of sexual intention as a mediator*

Variable	M	SD	1	2	3
1. Use of SEIM	12.41	7.83			
2. Sexual intention	4.01	1.78	0.567***		
3. Sexual behaviour	13.26	12.93	0.460***	0.487***	

Note: M: Mean; SD: Standard Deviation; \*\*\* $p < 0.001$ 

A structural model was constructed to test the indirect effect of the use of SEIM and sexual behaviour through sexual intention. The results of the study showed that the squared multiple correlations ( $R^2$ ) for sexual intention and sexual behaviour were 0.33 and 0.34, respectively. The use of SEIM specifically explained 33% of the variance in adolescents' sexual behaviour. Additionally, 34% of the variability in adolescents' sexual behaviour could be explained by both sexual intention and use of SEIM.

In Step 1, the direct effect of SEIM use on sexual behaviour was tested. The results indicated that the direct effect of the use of SEIM on sexual behaviour was statistically significant ( $\beta = 0.44$ ,  $p < 0.01$ ). In step 2, the use of SEIM significantly predicted sexual intention ( $\beta = 0.57$ ,  $p < 0.01$ ). In step 3, sexual intention significantly predicted

adolescents' sexual behaviour ( $\beta = 0.49$ ,  $p < 0.01$ ). The path coefficient for the direct effect of the use of SEIM on adolescents' sexual behaviour decreased and became non-significant when the sexual intention was controlled ( $\beta = 0.13$ ,  $p > 0.01$ ). This indicated that sexual intention entirely mediated the relationship between the use of SEIM and sexual behaviour among adolescents.

In order to test for a significant mediation effect of sexual intention on the relationship between the use of SEIM and sexual behaviour, a Sobel test was performed. The results of the Sobel test ( $Z = 3.949$ ,  $p < 0.01$ ) confirmed the role of sexual intention as a mediator in explaining the relationship between the use of SEIM and adolescents' sexual behaviour.

Table 3

Results for sexual intention as a mediator in the relationship between the use of SEIM and sexual behaviour (N=189)

Path	Estimate	SE	Critical ratio	p Value
Use of SEIM → Sexual intention	0.774	0.098	7.916	0.001
Sexual intention → Sexual behaviour	0.114	0.025	4.576	0.001
Use of SEIM → Sexual behaviour	0.129	0.031	4.198	0.001
Use of SEIM → Sexual Intention → Sexual behaviour	0.042	0.026	1.629	0.104

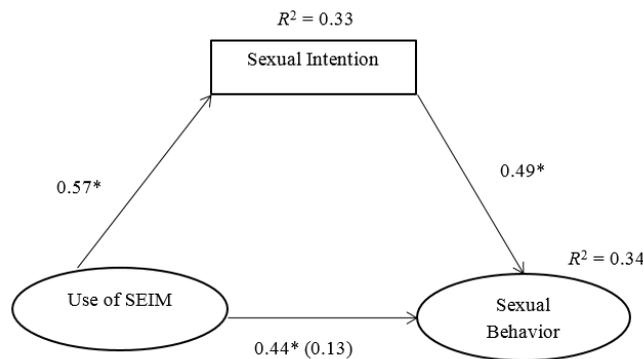


Figure 1. Hypothesized model linking the use of SEIM to sexual intention and sexual behaviour. Path coefficients are presented in standardized units N= 189. \*p < 0.001

**DISCUSSION**

This study aimed to examine the relationships between the use of SEIM, sexual intention, and sexual behaviour among sexually experienced adolescents in Malaysia. The findings of the study suggest that both SEIM use and sexual intention are positively related to sexual behaviour. These findings are also in line with previous studies (Bleakley, Hennessy, Fishbein, Coles, & Jordan, 2009; Brown & L’Engle, 2009; Hull et al., 2011; Lo & Wei, 2005). Meanwhile, the availability of studies that

examine the mediation effect of sexual intention on the relationship between the use of SEIM and adolescents’ sexual behaviour is limited. The results of this study fill the knowledge gap and the growing literature on adolescents’ sexual behaviour, especially in the Malaysian context.

Findings indicate that high usage of SEIM is related to an increased sexual intention. Adolescents who frequently viewed SIEM revealed higher intentions of engaging in sexually-related behaviour, which eventually leads to higher actual

engagement in sexually-related behaviour. The results of this study support the claim that exposure to sexual media content will increase adolescents' perceptions of social pressure to have sex, which consequently increases their intention and engagement in sexually-related behaviour (Atwood et al., 2012; Bleakley & Fishbein, 2011; L'Engle et al., 2006). It is obvious that sexual content in the Internet media poses a risk factor to adolescents' sexual intention and behaviours. Therefore, policymakers should exercise stricter control over this detrimental Internet media. At the same time, they can revitalize programs to educate and equip adolescents with comprehensive knowledge on positive decision making for issues concerning reproductive health through media literacy programs, which the current formal reproductive health education lacks. Brown (2006) suggested that media literacy program should expose adolescents to how the media was produced and advertised, at the same time teaching them the proper way to select and assess reliable sources, as well as to analyse the accessed information. Pinkleton, Austin, Chen, and Cohen (2012) also highlighted that the media could improve adolescents' reproductive health knowledge and influenced adolescents' decision-making outcomes regarding their sexual activities. Media literacy programs could strengthen adolescents' logic-oriented decision-making process, which in turn influenced their sexual decisions (Pinkleton et al., 2012).

Sexual intention is also related to sexual behaviour. Adolescents intending to engage

in sexually-related behaviour were found to display frequent engagements in sexually-related behaviours such as kissing, love touching, and sexual intercourse. These results are in line with previous studies (Bleakley et al., 2009; Busse et al., 2010; Hull et al., 2011) which linked sexual intention to actual sexual behaviour. Sexual intention is seen as a critical cognitive factor that affects adolescents' sexual decision and continues to be influential in adolescents' actual sexual behaviour (Ajzen, 1991).

The results of this study provide the evidence that sexual intention appears as a mediator in the relationship between the use of SEIM and sexual behaviour among adolescents. Similarly, the results further support findings by L'Engle and Jackson (2008) on the mediation effect of cognitive susceptibility on the use of sexually explicit media in relation to adolescents' sexual intercourse. According to Bandura (1989) and Chapin (2000), exposure to sexual media content could affect adolescents' attitudes, norms, and their portrayed behaviour. The findings supported the fact that adolescents' use of sexual media directly encouraged their tendency to engage in any sexual behaviour. After fixing sexual intention as the mediator, the direct effect of the use of SEIM and sexual behaviour was weakened and became non-significant. In other words, adolescents' sexual behaviour was not primarily influenced by SEIM usage itself, but also through sexual intention. This implies that sexual intention is the vital factor that contributes to adolescents' sexual behaviours. Environmental factors

may not influence sexual behaviour directly if adolescents themselves do not have strong intentions to engage in sexual behaviour. Given that adolescents' sexual intention is important in influencing adolescents' sexual behaviour, programs targeting adolescents must consider the healthy development of cognitive processes to effectively control their sexual arousal.

The results of this study contained several limitations. Firstly, the present study was limited by the sampling method that was used. This study utilised a non-randomised sampling method in identifying the study sample due to issues related to sensitivities towards specific research topics in Malaysia. Therefore, the generalizability of the findings was limited. Secondly, the cross-sectional study may not explain the causality link related to the use of SEIM, sexual intention, and sexual behaviour. Therefore, a longitudinal study could have been better in determining the cause and effect of the study variables. Furthermore, the respondents' age may have also been a constraint in obtaining a holistic view of sexual development among adolescents; as the respondents in this study consisted only of late adolescents, aged between 16 and 17 years.

## CONCLUSION

The present study provides statistical support concerning adolescents' sexual engagement by highlighting the mediating role of sexual intention on the relationship between the use of SEIM and adolescents'

sexual behaviour. The results provide evidence on the importance of SEIM usage and the individuals' sexual intention in determining adolescents' sexual engagement. Consequently, sexual reproductive health education targeting adolescents should incorporate media literacy programs and healthy cognitive processes, in the effort to promote better reproductive health among adolescents.

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## **Exploring *Awqaf Mutawalli*'s Accounting and Reporting Practices: Some Preliminary Malaysian Evidence**

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### **ABSTRACT**

Accounting and reporting in *awqaf* operations are directly linked to *awqafmutawalli*'s (*awqaf* manager or administrator) accountability. *Mutawalli*'s accountability is a pressing issue as it is inextricably linked to *awqaf* institution's sustainability and survival. Being a manager to *awqaf* assets, *mutawalli*'s accountability is therefore expected to influence donators' confidence and hence their continuous financial support. It is, hence, timely that *mutawalli*'s accountability from the acute dimensions of accounting and reporting are explored and examined. This effectively provides a basis for a reality check regarding the necessary improvements. Consistent with the above premise, this study explores the current accounting and reporting practices of two distinct *mutawallis*, operating on different operational platforms. Utilizing multiple research techniques comprising both interviews and record reviews, the preliminary empirical results are arguably informative and revealing, systematically providing an appropriate basis for a reality check on *mutawalli*'s accountability. This provides an improvement framework on *waqf* management to other *mutawallis* in Malaysia as well as filling the sparse academic literature on *awqaf* accountability in the acute context of accounting and reporting.

*Keywords:* Accounting and reporting practices, *awqaf*, disclosure

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### **INTRODUCTION**

The institution of *waqf* (plural) in Islam is one of the poverty alleviation mechanisms in the society besides *zakat* (compulsory charity) and *sadaqah* (optional charity). It has been widely discussed in the literature that *waqf* can be an effective system of

poverty eradication by improving the non-income generating aspects such as health and education, besides increasing access to physical facilities such as commercial, transportation, agricultural, industrial and many others (Sadeq, 2002; Ihsan & Ayedh, 2015). The imperative of *waqf* as the socio-economic vehicle in Islamic economics is also duly emphasized by Allah in the *Quran*:

*And in their wealth and possessions, there is right of the needy (Quran; 51:59)*

*Help one another in furthering virtue and God-consciousness (Taqwa), and do not help one another in furthering evil and enmity (Quran 5:2)*

*Awqaf* institutions are essentially Islamic religious entities (IREs) with charitable aims to which the accountability concept is paramount in the context of their survival (Hairul-Suhaimi & Hisham, 2011). This is premised on the fact that *mutawalli's* accountability would enhance the donator's confidence and hence their support, systematically causing *waqf's* sustainability and survival to become a function of *mutawalli's* accountability (Hairul-Suhaimi & Hisham, 2011; Yasmin & Haniffa, 2017). A body of accountability literature has grown extensively to explain the multi-dimensional accountability traits of *awqaf* institutions (e.g., Hairul-Suhaimi & Hisham, 2011; Hidayatul & Shahul-Hameed, 2011). The empirical accountability literature has also sought to

establish empirical evidence of the extent to which accountability has been observed by IREs' managers. On the back of these extensive studies, however, remain unique outstanding research issues.

First, the majority of prior *awqaf* studies were typically conducted using single or at most less than three *mutawallis*, with attributes contrastingly dissimilar among them. This renders the empirical results obtained to be unique and hence, non-generalizable to other IREs. Hence, it becomes an empirical question as to whether accountability observance in the examined IREs would be equivalent to that of other IREs, particularly in a country like Malaysia. This reinforces the need for examining respective state's specific accounting and reporting attributes in the studying of *mutawallis'* accountability. Second, both *awqaf* and *zakat* are Islamic economic tools available to address various economic issues among Muslims and non-Muslims. While the latter is compulsory, the former is purely voluntary in nature. Given the critical importance of these economic tools on the present challenging economic status, particularly among the Muslims, as well as the diverse stakeholders involved, the management of these religiously rooted charity tools has become a major research focus academically.

This demonstrates significant empirical gaps in the literature as well as the practical imperative of studying further the *mutawalli's* accounting and reporting practices, as evidence toward accountability observance. The silence of the current

empirical literature on this issue should be of great concern to all, given the important roles of both *awqaf* in the Muslims' economy and *mutawallis* at managing *awqaf* assets. Accordingly, this research reports preliminary empirical findings being part of a larger research on *awqaf* accountability from various managerial dimensions. The results presented in this paper are however focused only on two identified research issues of accounting and reporting based on two *awqaf* institutions (*mutawalli* A and B), whose organizational setup and management styles are observably dissimilar. Selecting these two distinctive *mutawallis* effectually provides appropriate analysis framework in examining the *awqaf* institution's accounting and reporting practices across different management regimes.

The significance and hence contributions of this preliminary research are, arguably, at least twofold. First, it constitutes the foremost research attempt at providing fresh empirical evidence of accounting and reporting practices among *mutawallis*, whose respective organizational setting and management styles are contrastingly dissimilar. This allows the manipulation of different settings in examining the *mutawalli's* accountability traits of accounting and reporting. Second, the results provide critical policy inputs to relevant stakeholders in the *awqaf* ecosystem, particularly in understanding the current state of accounting and reporting practices which indirectly reflects their accountability levels.

The remainder of this paper is structured as follows. Section 2 proceeds to reviews related literature on *awqaf*, accountability, accounting and reporting in the charity context. This is followed by the research method in Section 3. The empirical results and discussions are presented in Section 4. Final section concludes the paper which includes some recommendations and suggested future research.

## Literature Review

**Waqf: General Overview and Historical Development.** The word *waqf* is primarily used in the Islamic context to differentiate it from endowment, trust or foundation that was not established in expressed compliance with *Shari'ah* (Islamic law). Grammatically, *waqf* and its plural form *awqaf* are nouns derived from the transitive verb *waqafa* which means 'to stop', 'to pause' or 'to detain' (Malaysian Accounting Standards Board [MASB], 2014). In Islamic jurisprudence, a *waqf* represents a dedication of a specified asset (*mawquf*) by a settlor (*waqif*) into the administration of a *waqf* manager (*mutawalli*) through a legal instrument (*waqfiyyah*) such that the income or usufruct of that asset benefits a stated beneficiary (*mawqufalaih*) or is used for a stated purpose (Gaudiosi, 1988). *Waqf* is different from *zakat* in the sense that unlike the former, the latter is made compulsory among the Muslims although both fall under the concept of *sadaqah* (religious contribution). *Zakat* beneficiaries are also clearly mentioned in the *Quran* (the eight *asnafs* or categories) as compared to *waqf*

funds, but the Islamic scholars unanimously agreed that it should be for any pious purposes, as long as it does not contravene the *shari'ah*. Historically, *waqf* assets were used for various purposes including education, healthcare and financing of public amenities (Yayla, 2011). In the context of Malaysia, the manager of *awqaf* is only rendered valid by the law to be the State Islamic Religious Council (SIRC) of each State (Hairul-Suhaimi & Hisham, 2011). The *waqf* property is not to be sold, transferred nor can it be inherited because the *waqif* has relinquished his claim on the said *waqf* property (Gaudiosi, 1988). Once the property is surrendered to be under *waqf*, it will become perpetually managed by the appointed *mutawalli* such that it remains so until the Day of Judgment with no one being able to change its status. The principle of perpetuity is protected by *Shari'ah* based on a series of rulings such as the prohibition of disposition of the *waqf* assets through sale and other contracts.

**Accounting, Reporting and Accountability in Religious Institutions: Context and Prior Research.** Equivalent to places of worship such as Churches (Laughlin, 1988; Quattrone, 2004) and Mosques (Adil, Mohd-Sanusi, Jaafar, Khalid, & Aziz, 2013), as well as religiously linked economic based entities such as *zakat* (Abdul-Rahman & Goddard, 1998) and non-Islamic charitable organizations (McConville, 2017), *awqaf* organizations are primarily religious and economic based, not-for-profit institutions which are accountable to

various stakeholders (Yasmin, Haniffa, & Hudaib, 2014). The extant literature in the spheres of religious and economic based, not-for-profit institutions indicate that accounting and reporting practices in these institutions are interwoven with the concept of accountability (Connolly & Hyndman, 2017; Hyndman, 2017).

Accountability could be broadly defined as “*a relationship between an actor and a forum in which the actor has an obligation to explain and justify his or her actions or conducts*” (Bovens, 2007). Such definition suggests that accountability involves the process of explaining and providing justifications of what has been done, currently done, and to be done, in the future, by the actor to those he or she is answerable or accountable to (Barlev, 2006; Stewart, 1984). In the context of not-for-profit which *awqaf* belongs to, Hodges (2012) explained that there existed two types of accountability-vertical and horizontal. The former relates to legal structures and the latter represents accountability across governmental departments and other stakeholders. Recently, the term hierarchical and holistic accountability emerged in the accounting and accountability literature (O'Dwyer & Unerman, 2008), whereby the former relates to a narrow form of accountability where influential stakeholders are prioritized while holistic accountability caters to a much wider scope of stakeholders.

Managers of not-for-profit institutions are therefore expected to prepare appropriate (non)accounting records and subsequently provide transparent reporting

to relevant stakeholders (government, donors, recipients, etc.) covering both the financial and non-financial information of the organization's (current and past) activities in order to build the stakeholders' trust, which would subsequently be translated into a continuous stream of financial contributions critically needed for the organization's future sustainability (McConville, 2017; Yasmin & Haniffa, 2017). More importantly, the provision of transparent reporting would facilitate the unique accountability relationship between various stakeholders, particularly the funders and charity organizations.

In the specific context of accounting, it is regarded as the language of business, finance and commerce, practically applicable to all cultures and historical periods (civilization) (Carmona & Ezzamel, 2007). The objective of accounting and reporting in a not-for-profit context is primarily to disseminate the organization's activities and achievements for the relevant fiscal years to the stakeholders, which may be internal or external (Dellaportas et al., 2012). Therefore, the non-financial information should be communicated together with the financial information to enable a 'holistic' communication with relevant stakeholders as this is also a part of the accountability processes (Yasmin *et al.*, 2014; Yasmin & Haniffa, 2017).

Prior research in the specific context of western churches being part of the not-for-profit organizations indicates that churches played a central role in the development of capitalism and accounting

(Quattrone, 2004) which contradicts the essence of the secularism concept whereby church (clergy) is only allowed to manage the sacred and leave the worldly matters to the laity (Swanson & Gardner, 1986). As a result of this demarcation, there are two divisions (of the sacred and the profane) where accounting is considered as a profane activity (Booth, 1993; Laughlin, 1988). The emergence of modern accounting was joined by nascent capitalistic enterprises emerging in the early modern city states such as Italian cities. Luca Pacioli, a church trained scholar, who is claimed to be the father of accounting, wrote *Summa*, which includes a chapter on double entry bookkeeping practices in the 15<sup>th</sup> century (Foo & Hwa, 2006), although it was claimed that he learnt these practices from the Arab traders who frequented Venice [as Venice was the center port during that period (Zaid, 2004)].

A study by Swanson and Gardner (1986) documents the emergence of accounting procedures and concepts in not-for-profit institutions during a period of change in church institutions in America, during which charities played a critical role in the American (and British) society history. The Episcopal Church in the 18<sup>th</sup> century canonized accounting rules and processes, although there were no specific statistics or financial data in early canon. The accountability trail was that the minister reported the church's affairs to an annual convention of diocese, which in turn reported to a general convention which finally reported to the House of Bishops. In 1808, the churches started using

statistics in report and a detailed treasurer's report existed by early 1840s in Indiana, with the required tabular summaries of the assessments of the local parishes. The reporting developments were recorded from 1853 until 1910.

Laughlin's (1988) seminal work in studying the Church of England accounting and reporting is among the pioneer in the research of accounting in religious institutions. He argued that accounting was not a context-free mechanic rather it was bound by the surroundings or organizational context in which it operated, especially the influence of the belief system that guided conduct in religious organizations (Tinker, 2004). Laughlin's (1988) exploration of the inter-relationship through a contextual analysis of the accounting system of the Church of England in order to understand the social fabric of Church of England is an innovation to understand accounting roles in religious organizations. Since then, it has attracted the accounting scholars to study how accounting is used in organizations heavily inclined towards religion (Carmona & Ezzamel, 2007; Hardy & Ballis, 2013; McPhail, Gorringer, & Gray, 2005). Currently, there is a demand for greater disclosure of non-financial information on objectives and outputs of charity in terms of comparisons and explanations (Hyndman & McConville, 2015).

In the *waqf* and Islamic charities' context, transparent reporting will certainly enhance *mutawalli's* accountability (Hairul-Suhaimi & Hisham, 2011; Hisham, Saerah, Azimah, & Hairul-Suhaimi, 2015) and

the distribution of charities' annual reports serves as an important accountability feature (Yasmin et al., 2014; Yasmin & Haniffa, 2017). The extant literature concentrating on *waqf* financial reporting is observably scant, with the majority of prior studies being done on sample(s) in Malaysia (Hairul-Suhaimi & Hisham, 2011), Singapore (Che Azmi & Hanifa, 2015; Hisham et al., 2015) and in the UK (Yasmin et al., 2014; Yasmin & Haniffa, 2017). These studies were either conducted to compare the reporting transparency among different *waqf* (and Islamic charities) institutions (Che Azmi & Hanifa, 2015; Yasmin & Haniffa, 2017) or the reporting transparency between Islamic charities and its non-Islamic counterparts (Yasmin et al., 2014). The empirical results presented, generally, point to the opaque nature of reporting by examined *mutawallis* such as the imbalance in the provision of information which was heavily toward the administrative aspects rather than achievements of the charities towards their mission, vision and objectives (Yasmin et al., 2014).

In summary, relevant literature covering the issue of accounting and reporting practices by *awqaf mutawallis* reflects the strategic role of accounting and reporting being a unique mechanism in discharging *mutawalli's* accountability, an element critically needed to obtain stakeholders' trust which in turn ensures the continuous philanthropic and altruistic support towards the institutions, particularly donors or funders. This research adds further to this stream of research by examining the

accounting and reporting practices of two selected Malaysian *awqaf mutawallis* operating on a distinct operational platform.

## METHOD

This paper adopts the mixed mode approach with strong emphasis on qualitative technique (Creswell, 2003) attributed to at least two reasons. First, the nature of research objectives which involve an exploration of unknown phenomenon warrants a quantitative approach alone to become unfeasible (Savin-Baden & Major, 2013). Second, the mixed mode allows for the generation of rich research results, enabling researchers to capitalize on first-hand information from the qualitative research technique (Hammersley, 2013). This mixed mode research project involved the use of robust research techniques including interviews and documentation reviews. Consistent with the established research objective of exploring *mutawallis'* accounting and reporting practices, several sub-dimensions are further established in guiding the data collection processes and analysis thereon.

The two selected *mutawallis* are located in two separate states in peninsular Malaysia and coded A and B, respectively, following the anonymity request by *mutawallis* in exchange of their agreement to allow the data collection processes. *Mutawalli A* was established as a corporate entity in 2011 and independently handles *awqaf* assets and funds after assuming the role previously held by the state government. It carries the corporatized image as well as

corporate management style which in sharp contrast to *mutawalli B* which operates on a government platform. The selection of these *mutawallis* premised on the fact that the distinct operational and management setup allows this research to observe and undertake meaningful comparison with regards to potential (dis)similar patterns of accounting and reporting practices.

Relevant accounting and disclosure documents and information from multiple sources including websites, published bulletins, and annual reports were collected from each *mutawalli*. Further, semi-structured interviews with the identified respondents working in the respective institutions were also conducted. The interviews conducted with the officers (Mrs. A and Mr. B from *Mutawalli A* and *B* respectively) lasted for about forty five minutes each and were held in the respective *mutawalli's* head office in mid May 2016. Notes were taken as both interviewees were reluctant to be audio recorded or videotaped. These notes were subsequently organized in a tabular format according to eight established sub-dimensions (Table 1) and were given to both interviewees separately for necessary corrections and agreement. The questions asked during the interview were based on the eight sub-dimensions as presented in Table 1 below.

## RESULTS AND DISCUSSIONS

The data obtained from both *mutawallis* are analyzed by comparing the relevant aspects of both accounting and reporting between the two *mutawallis*. The empirical

results, according to the established dimensions, are tabulated in Table 1 below. Overall, the results indicate differential levels of reporting in terms of contents, reporting methods, frequencies, target users, and regulatory structure governing the accounting and reporting by the selected *mutawallis*.

Generally, *mutawalli* A is observed to be better, compared to *mutawalli* B with respect to reporting contents, methods, frequencies, and target users. These results are generally consistent with those obtained by Che Azmi and Hanifa (2015) in the case of accounting and reporting between *awqaf mutawallis* in Malaysia and Singapore, Connolly and Hyndman (2001) in the case of charity accounts between charity managers in Ireland and United Kingdom, Palmer et al. (2001) in the case of charity reporting between charity managers in United Kingdom, Yasmin et al. (2014) in the case of communicated accountability practices of Muslim and Christian charity organizations in England and Wales.

Consistent with results obtained by Hairul-Suhaimi & Hisham (2011), both *mutawallis*' financial statements have shown several main recording inconsistencies vis-à-vis their status as donated fund's managers, as opposed to being the ultimate owner of such philanthropic monies. Specifically, the main recording inconsistencies were detected in the use of wrong accounting terms to represent the underlying meaning of specific accounting items. For instance, "Revenues" should rightfully be recorded as "*Waqf* Collection", as the future economic

benefits attached to such funds will not be accruing to the *mutawallis*, except for the portion of management fees or expenses associated with managing the funds. The term "Profit on investment" should also ideally be "Profit on *waqf* fund invested" or "*Waqf* Usufructs" to correctly reflect the nature of such an item being the benefits (i.e. usufructs) obtained from utilizing such *waqf* fund. Additionally, "Expenses" should rightfully be recorded as "*Waqf* Disbursement/Distribution" as distributions to *waqf* recipients do not fit into the definition of expenses in the accounting context which relates to costs associated in generating the revenue i.e. *waqf* collection. Finally, the term "Surplus on income" should rightfully be recorded as "Surplus on *waqf* collection" as the term "collection" reflects more suitably the nature of *waqf* funds collected which are not an income to the *mutawalli* but rather to the *awqaf* funds managed by the *mutawalli*. These primarily aim at appropriately reflecting the *mutawalli* status as *waqf* fund manager rather than the ultimate owner or beneficiaries (Hairul-Suhaimi & Hisham, 2011).

The better accounting and reporting practices by *mutawalli* A could be explained by the human resource factor, an argument based on the finding presented in Table 1 which is coherent with arguments suggested in prior empirical *waqf* research (e.g. Hairul-Suhaimi & Hisham, 2011; Hisham et al., 2015). The presence of a qualified individual with accounting qualifications-information obtained and verified through the interview with Mrs. A,- enables

*mutawalli* A to produce more sophisticated accounting records and transparent reporting compared to *mutawalli* B, whose accounting records were prepared by an individual without proper accounting qualifications. The absence of a comprehensive and integrated computerized accounting system in *mutawalli* B further exacerbates its poor accounting and reporting practices as Mr. B admitted during the interview that rampant recording errors were discovered during independent audit process due to the manual nature of recording using Excel. Ironically, Hisham et al. (2015) discovered that despite the examined *mutawalli* operating in a developed South East Asian country and having only two permanent members of staff, the accounting records and reporting practices were observed to be excellent due to the usage of a highly comprehensive and integrated computerized accounting system. This suggests the operational benefits of adopting information technology infrastructure in accounting and reporting practices which should be seriously considered by *mutawalli* B.

Comparing the types of financial reports provided by both entities indicates that *mutawalli* A provides more codified, comprehensive, and transparent reporting to stakeholders compared to *mutawalli* B and the non-availability of notes to the accounts explaining the nature of disbursements made during the period by *mutawalli* B warrants further discussion. The extant charity literature suggests that reporting on beneficiaries or channels of charity distributions is critical to the development of

trust and accountability relationship between charity entity and funders (Hyndman, 2017). The absence of such information will just put *mutawalli* B in a position of reducing donors' trust which would be detrimental to its survival in the long run.

In terms of reporting frequency, target users, reporting mode, and availability of reports, the results indicate that *mutawalli* B provides a more opaque and untimely reporting compared to *mutawalli* A as the target users were confirmed by Mr. B during the interview to confine to acute internal users only and the existence of an official reporting lag of three years (considering 2013 reporting as the case, relative to 2016). These are in sharp contrast to more transparent reporting practices by *mutawalli* A which specifically provide an updated reporting to donors on a timely and frequent basis. Various relevant reports were also made available through diverse communication means by *mutawalli* A as compared to an extremely limited reporting channel offered by *mutawalli* B.

The results on the last two dimensions of fixed assets recording and valuation constitute a serious reality check particularly for *mutawalli* B. Recent revelations in the yearly audit report prepared by the Malaysian Auditor General concerning weak *waqf* assets management by several SIRC's should be the warning sign. It indicates that several strategic *waqf* assets remain poorly managed in terms of both recording and valuation (The National Audit Department, 2015). These are critical areas prone to fraud as many fraud cases involving

Table 1  
*Accounting and reporting practices*

No	Sub-Dimensions	<i>Mutawalli</i> A	<i>Mutawalli</i> B
1	General	Accounting records prepared based on Malaysian Financial Reporting Standards (MFRS) Utilizing accounting software Accounting records handled by assistant accountant with accounting background.	Cash <i>waqf</i> introduced in 1998 but formal reporting only in 2010. Report manually prepared by the Assistant Executive of Economy (Gred E27) using Excel and UBS for daily collection. Rampant recording errors due to manual nature of recording Financial report prepared using excel. Nobody in the <i>waqf</i> department possesses accounting qualification.
2	Financial Report Types	Collection and Disbursement Report Statement of Income and Expenses Statement of Financial Position Statement of cash flow Notes to the account	They only official report for <i>awqaf</i> is the Statement of Income & Expenses. Revenue was classified as: Sales of SWP units (+) Profits on current account (+) profit on <i>Al-Mudharabah</i> on Investment account Expenses consists of <i>Waqf</i> disbursement; Bank charges. Notes to the accounts are NOT provided such as details on disbursements.
3	Frequency	Quarterly reporting in the <i>Bulletin</i> available: Upon request; and To those making salary deductions	Requirement: Yearly reporting Physical check revealed that the reporting for 2013 and 2014 yet to be finalized.
4	Target Users	Prepared for the sole usage of: Board of directors; Staffs: To inform progress especially to Marketing & Project department.	Prepared for the sole usage of: Staffs in <i>Waqf</i> Department; SIRC.
5	Mode	<i>Bulletin</i> : Twice a year; Unpublished financial report: Yearly	Hard copy is only for internal use, but unpublished for public viewing. Occasional and un-updated online reporting is available at <i>mutawalli</i> 's website but not specifically on collection & disbursement in detail.
6	Availability	Publicly available through: <i>Bulletin</i> Website News Paper Radio IKIM; <i>Mutawalli</i> 's representative	Reporting on collection and disbursement is upon request by donors and not publicly available.

Table 1 (continue)

No	Sub-Dimensions	MutawalliA	MutawalliB
7	Fixed assets register for Normal <i>Waqf</i>	All assets are registered under SIRC's name and reported in its annual report (AR).	Fixed assets not properly registered and recognized in the Annual Report as it was manually recorded for department reference only.
8	Assets valuation	Assets valuation was done for land classified for development and accordingly depreciated.	Not valued as it was not recognized in the AR. Cited reason: Costly to engage independent valuer or assessor.

*waqf* assets, particularly *waqf* land, were noted to have primarily been caused by weak *waqf* assets management particularly on the transfer of ownership, recording, and valuation. Unlike *mutawalli A*, there was no proper recognition and hence recording of *waqf* assets in *mutawalli B*'s annual report. Mr. B explained, during the interview, that all *waqf* assets were manually recorded for the department's reference only and no valuation exercise was done in view of the cost involved in engaging the independent assessor.

Overall, being an entity operating on a government platform with high bureaucratic practices, *mutawalli B* is noted to be lacking in almost all material respects of accounting and reporting practices compared to *mutawalli A*. Arguably, the state of accounting and reporting practices by *mutawalli B* is practically consistent with the low demand for such information disclosure by donors in the state in which it operates, whose economic development is noted to be less when compared to the state in which *mutawalli A* is operating (Economic Planning Unit, 2015). The urban nature of

the state in which *mutawalli A* is operating and hence the higher level of sophistication with regards to informational demand and processing of its people effectively creates appropriate demand for frequent, timely, and informative information disclosure regarding *waqf* activities handled by *mutawalli A*, as a majority of the donors work in professional career paths, consistent with its "developed" state status. Although this research paper is unable to prove empirically that the corporatized nature of *mutawalli A* had contributed towards a more proper accounting and transparent reporting, our conjecture is that the superior state of accounting and reporting by *mutawalli A*, compared to *mutawalli B*, is the measured response of corporatization exercise whose primary aims are to enhance operational efficiency and improving deliverables based on the donors' expectations and demands (Wahab & Rahman, 2013; Yusuf & Derus, 2013). This systematically enhances the entity's emphasis on donors' confidence and contributions in ensuring organizational success.

## CONCLUSION

Research in the specific area of accounting and reporting practices in the context of the *waqf* institution is noticeably growing and remains the subject of ongoing study, globally. This research project examined issues related to *mutawallis*' accountability across different management and operational regimes and reports novel evidence on accounting and reporting practices of two separate *mutawallis* with different institutional features and establishment characteristics. The motivation behind this study rests on the need for *mutawallis* to observe accountability in order to ensure the institution's survival and such a demand is observed to be sparsely examined in prior research. The empirical results, albeit preliminary, are notably enlightening and incrementally contributive to the extant *awqaf* literature. The results in general indicate differential levels of reporting in terms of contents, reporting methods, frequencies, target users, and regulatory structure governing the accounting and reporting by the *mutawallis*. Being a *mutawalli* operating on a government platform with bureaucratic practices, *mutawalli* B is noted to be lacking in almost all material respects, compared to *mutawalli* A. The state of accounting and reporting practices by *mutawalli* B is practically consistent with the low demand for such information disclosure by donors in the state whose economic development is considered as lower compared to the state in which *mutawalli* A is operating, thereby shaping the users' sophistication in informational demand and processing.

The results' implications are at least twofold. First, it reinforces the market assumption with regards to demand and supply of an organization's accounting disclosure whereby the user's information processing ability affects, to a certain extent, the demand for quality information and subsequently the supply thereof. Further, the corporatized nature of the *mutawalli* provides further impetus for quality reporting. These are, observably, demonstrated by the environmental setting of *mutawalli* A. Secondly, the results fill the highly fragmented literature on *awqaf* accounting and reporting, particularly in relation to the effect of different operational set ups, as presented in this research. Whilst these implications constitute incremental contributions to both academic literature and practice, it was built upon several limitations which are common in almost all prior academic research. Among others, the present research is based only on two selected *mutawallis* in a single country of Malaysia, which severely limits the results generalizability. It also looked at the issues of accounting and reporting from the mere surface of the organizational practice, largely due to parsimonious reasons, given the exploratory nature of the research. These, however, systematically open up fruitful areas for future research. Overall, the presented empirical evidence, albeit preliminary in nature, enhances our understanding on *mutawallis*' accounting and reporting, thereby adding up to the growing body of knowledge related to *awqaf mutawallis*' accountability in the Malaysian context.

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## **The Impact of Applying Modern Financial Analysis Tools on Detecting Fraudulent Practices in Financial Statements of Listed Banks - An Analytical Study**

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### **ABSTRACT**

The study aimed at finding out the impact of applying modern financial analysis tools on detecting fraudulent practices in financial statements of listed banks at Damascus stock exchange (DSE). Traditional tools, such as individual (univariate) financial ratios and trend analyses, proved to have lag indicators whereas modern tools, such as quantitative statistical models, have a prediction power and searching for fraudulent practices in businesses. Two models of the independent variable, two types of fraudulent practices of the dependent variable, and one moderating variable were stated. The study adopted a descriptive and analytical approach by analyzing financial statements of a sample of 11 Syrian banks using statistical approaches to test the research hypotheses. Data of this research were gathered based on a series period from 2010-2014, and processed using the statistical package of social sciences (SPSS). The main results of the study are (1) There are impacts of financial analysis tools represented by LEAM2003 and the MJ1995 models on detecting fraudulent practices in listed banks at Damascus stock exchange. This is explained by the existence of many accounting distortions leading to fraudulent accounting practices, such as distorting expenses and revenues classifications and deferring these items for future periods (fraud accounting) or recognizing recurring and nonrecurring future expenses this year with the aim of reducing the current year income (big bath accounting), exploiting the

flexibility of IFRS and twisting governance procedures and instructions. (2) There is a positive relationship between the bank size and fraudulent practices where management and accountants of banks are able to conceal accounting treatments in order to accommodate local environments. (3) It is more suitable for the Syrian context

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to apply quantitative statistical models that are more effective in detecting accounting fraudulence compared with behavioral implications and other non-statistical models. The research recommended a way of detecting fraudulent accounting practices by reducing the gap between the tax-based income and the accounting-based income, and applying the benchmarking strategy, such as Sarbanes Oxley Act.

*Keywords:* Financial analysis tools, fraudulent practices, Syrian listed banks

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## INTRODUCTION

Recent century has witnessed many attempts taking place to prevent distortion and manipulations in financial statements and reporting processes of firms, where many studies have agreed on the existence of advantages of financial reporting in businesses for stakeholders, including owners (Gill & Obradovich, 2012). Similarly, the accounting implications evolved, as time elapsed, professional ethics that are much sharper today due to the reaped knowledge arising from the ongoing problematic issues facing the auditing field (Dutta & Gigler, 2002; Kleyman, 2006). Among various issues facing the auditing profession nowadays is fraud, which involved the notion of deliberately affecting or risking the belongings of others, their interest or rights in a certain property, using the inherent flexibilities where applicable laws and standards accords permitted (Nyabuti, Memba, & Chege,

2016). Other studies went further in terms of fraudulence excreted by one or more individuals among management, whose charged with governance, employees, or third parties, involving deception practices to obtain an unjust or illegal advantages (Whittington, & Delany, 2013). Previous studies attempted to discover and detect such practices differently with one conformity purpose existed among all of them through maintaining or increasing relevance and reliability of financial statements to different internal and external users, and to avoid illegal management attempts in manipulating accounting numbers on contrary with the real condition of the firm's performance (Amat, 2004; Dorgham, Al-Halabi, & Shanikat, 2014). Thus, accumulated potential results of fraud is enormous to any economy, corporations, and individuals, led by the collapse of a giant enterprises such as what happened to Enron, and World Com (Silverstone & Davia, 2005). One attempt of defraud behavior, that is unaccepted practices, is to cook books and records to conceal true performance, to preserve personal status/control, and to maintain personal wealth/income (Kranacher, Riley, & Wells, 2011). Some studies called for new tools and strategies to limit such manipulations in financial statements (Coenen, 2008; Jackson, Sawyers, & Jenkins, 2009; Kranacher et al., 2011). On the other hand, some studies argued that management pressure can arise from various factors or enablers such as individuals being greed, personal financial problems, schooling and

medical expenses, and investment losses; and other environmental issues such as meeting analysts expectations, deadlines, and qualifying for bonuses (Kranacher, et al., 2011). However, members of directors of firms could play a role in preventing fraud through their unacceptability of fraud (Dorgham, et al., 2014; Morris, Mckay, & Oates, 2009).

In the context of audit standards, auditors differentiated between errors, deception, violation of laws and fraud in their professional works, and accordingly, auditors should understand fraud in accordance with the scope of their work (Vona, 2011). This is supported by other studies that have agreed on the existence of advantages of financial and management moderating systems in businesses for owners, board of directors, and chief financial officers, CEOs (Arens, Elder, & Beasley, 2017; Gill & Obradovich, 2012; Jiang, Zhu, & Huang, 2013).

Recently, many researchers called for more studies to discover ways, tools, and factors that affect, and be affected by, in detecting fraudulent practices by auditors, analysts, and others in firms with the aim of studying real fraudulent practices, adopting new approaches to solve consequences of these negative effects, and develop new tools and audit procedures to achieve predetermined objectives (Dorgham, et al. 2014; Greiner, Kohlbeck, & Smith, 2013; Taylor, & Ux, 2010). A further line of study pointed to the necessity of detecting informal practices that were embodied in formal systems, and referred to methods

and techniques that were difficult to detect by auditors (Jiang et al., 2013; Whittington & Delany, 2013). Other studies focused on moderating tools to support accounting and audit standards, such as improving current performance measures using financial ratios and models and providing continuous disclosures for owners of firms (Dorgham et al., 2014; Rapp, 2010). Actually, some corporations incorporated forensic tests in their audit department to detect fraud, such as comparing the employee's contact with the supplier's contact details; testing totals; and applying Benford's test to detect the transactions deviation from Benford's distribution (Swanson, 2010). It can be said that the perpetrator's position at different levels in firms appear to affect fraud losses when analyzed and reported separately, whether internally or externally (Johnson, Kuhn, Apostolou, & Hassell, 2013; Peltier-Rivest & Lanoue, 2012; Tanjitprom, 2013).

Furthermore, some studies used questionnaire forms to identify the influence of management in detecting creative accounting practices and found that the key management behavior emphasized the tax evasion process in different ways ranging from the income soothing and creative accounting to fraud accounting and big bath accounting (Nyabuti et al., 2016; Peltier-Rivest & Lanoue, 2012; Silverstone & Davia, 2005; Taylor & Xu, 2010). Other studies attempted to set out a theoretical framework with regard to creative accounting practices that emerged from developments of behavioral accounting issues in relationship with the behavior

theory and the behavior ethics of accounting (Vladu & Cuzdriorean, 2013; Vona, 2011).

The aforementioned discussion did not benefit from quantitative statistical tools that may have more impacts on detecting fraudulent accounting practices compared with the behavioral issues (Nyabuti et al., 2016). It is proven that traditional tools, such as individual (univariate) financial ratios and trend analyses, have lag indicators based on historical financial statements data, whereas modern tools, such as quantitative statistical models, have a prediction power and searching for fraudulent accounting practices in businesses (Gibson, 2009; Richardson, Sloan, Soliman, & Tuna, 2006). Moreover, there are many models that were used in previous studies, such as those that are relied on accruals in financial accounting (Modified Jones Model 1995, and Miller Model 2007); accounting changes by exploiting IAS and IFRS (e.g. Moses Model 1987, Herrmann & Inoue Model 1996); and statistical coefficients of variation and standard deviations (Leuz et. al. Model 2003, and Chaney and Lewis Model 1998) which were proved their effectiveness in detecting earnings management, fraud accounting, creative accounting and the big bath accounting in various contexts (Dechow, Sloan, & Sweeney, 1995; Leuz, Nanda, & Wysocki, 2003). It is expected that these quantitative statistical models are important in detecting fraudulent accounting practices, such as fraud accounting and the big bath accounting. While fraud accounting practices centered around transferring expenses and revenues from one period to

another within income statements, the big bath accounting focusing on recognizing recurring and nonrecurring future expenses this year aiming at reducing the current year's income (Silverstone & Davia, 2005; Stolowy & Breton, 2004).

Furthermore, despite the fact that fraudulent accounting practices existed in businesses at different degrees there were conflicting results regarding the existence of negative, positive or no relationships between fraudulent accounting practices and the firm's size (Banko, Frye, Wang, & Marie, 2013; Hovey & Naughton, 2003). More importantly, some studies indicated the positive relationship between the intention of management to exert fraudulent accounting practices and the firm's size, with the aim of achieving financial analysts' expectations (Banko et al., 2013).

This research aimed at exploring the impact of financial analysis tools, represented by the Leuz et al. of 2003 and Modified Jones of 1995 models on detecting fraudulent accounting practices in Syrian banks listed at Damascus stock exchange (DSE).

## **MATERIALS AND METHODS**

Detecting fraudulent accounting practices may happen in different ways. First, through increasing or decreasing current profits in the interest of prior or future periods using accounting numbers in financial statements of banks, by concealing facts related to elements of income statements and balance sheets with the coverage of flexibility in IFRS. Second, through exploiting gaps in

local legislations. Third, through excessive trust in certain employees. The main problem of this research is presented to answer the following main questions:

1- What is the impact of applying the Leuz et al. model on detecting fraudulent practices (FA and BBA) in listed banks at Damascus stock exchange (DSE)?

2- What is the impact of applying the MJ model on detecting fraudulent practices (FA and BBA) in listed banks at Damascus stock exchange (DSE)?

3- What are differences on the impact of applying the Leuz et al. model on detecting fraudulent practices (FA and BBA) in listed banks at Damascus stock exchange (DSE) attributed to the bank size?

4- What are differences on the impact of applying the MJ model on detecting fraudulent practices (FA and BBA) in listed banks at Damascus stock exchange (DSE) attributed to the bank size?

The research focused on exploring the impact of financial analysis tools on detecting fraudulent practices in listed banks at Damascus stock exchange, as shown in Figure (1).

The research relied on a descriptive and analytical approach, and accordingly, the research was divided into two parts: the first part was theoretical by presenting prior literature on using selected modern financial tools to detect fraudulent accounting practices, and the second part was analytical, using the content analysis approach, by analyzing financial statements and reports of the sample studied.

Accordingly, the research hypotheses are as follows:

1- H01. There is no significant impact ( $\alpha \leq 0.05$ ) of applying the Leuz et al. model on detecting fraudulent practices (FA and BBA) in listed banks at Damascus stock exchange (DSE).

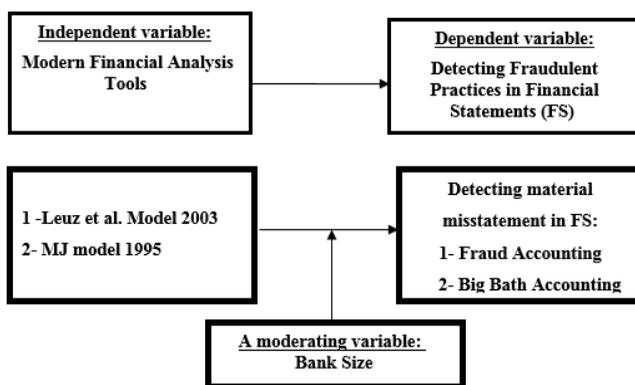


Figure 1. The impact of independent variables in dependent variables and their elements

Source: Prepared by researcher based on (Braiotta, Gazzaway, Colson, & Ramamoorti, 2010; Dorgham et al., 2014; Jackson et al., 2009)

2- H02. There is no significant impact ( $\alpha \leq 0.05$ ) of applying the MJ model on detecting fraudulent practices (FA and BBA) in listed banks at Damascus stock exchange (DSE).

3- H03. There are no differences ( $\alpha \leq 0.05$ ) on the impact of applying the Leuz et al. model on detecting fraudulent practices (FA and BBA) in listed banks at Damascus stock exchange (DSE) attributed to the bank size.

4- H04. There are no differences ( $\alpha \leq 0.05$ ) on the impact of applying the MJ model on detecting fraudulent practices (FA and BBA) in listed banks at Damascus stock exchange (DSE) attributed to the bank size.

The research method represented the research population (15) listed banks at Damascus stock exchange, based on the issued fiscal year of 2015, and sources of data gathering, from which a sample of 11 listed banks (that is, 11 financial statements- for each year of the series of 5 years- that consisted of: income statements, financial position statements, ownership equity statements, cash flows statements, and all notes that constituted main parts of these statements) were processed and analyzed using a 5-year series analytical approach during the period from 2010 till 2014. The research samples of 11 banks were selected based on the following criteria:

1- the bank should be already listed in Damascus stock exchange during the current study;

2- the fiscal year for the bank should be ended at 31-12.

3- the bank should not face abnormal

events (such as consolidation) during the current study;

4- the bank should publish annual financial statements that are available regularly for this series of time (2010–2014).

Thus, the total number of banks that succeeded in fulfilling the aforementioned conditions is 11 (out of 15 banks) and considered as represented the sample of the study with the total cases of the content analysis is 55 (i.e.,  $11 \times 5$  years, the series time period of this study). Thus, average figures of the financial statements of 11 banks for each year of the period were calculated to represent the data required for the application of the two models: that is two elements of the independent variable. On the other hand, average figures of changes fraud accounting (FA) and the big bath accounting (BBA) for the same series period were also perceived and calculated to represent the dependent variable.

The two models, namely, the Leuz et al. of 2003 model (Leuz et al., 2003) and the Modified Jones J of 1995 model (Dechow et al., 1995) and their formulae are as follows:

(i) The Leuz et al. model (Leuz et al., 2003): the model is used in this study to measure and detect fraudulent practices in listed banks in the DSE with the application of the following formula:

$SD(NOI_{i,t}) / SD(NCFO_{i,t})$  Where:  $[\ ]$

$SD(NOI_{i,t})$ = the standard deviation of net operating income for the bank i in the year t.

$SD(NCFO_{i,t})$ = the standard deviation of net cash flow from operating activities for the bank i in the year t.

The model assumed that banks that practice fraudulence, in different types, are those where:  $SD(NOI_{i,t}) < SD(NCFO_{i,t})$ ; that is when the model output equals to one or less than one. Thus, according to the Leuz et. al. model, the bank in study could practice fraudulence if the value of the model is equal or less than one.

(ii) The Modified Jones Model 1995 (Dechow et al., 1995): The researchers Dechow et. al. 1995 were modified the Jones Model of 1991, as a result of several criticisms to Jones's model of 1991, by introducing changes in receivables accounts in addition to revenues to the Jones 1991 model. This is done through the following steps:

(1) Measuring total accruals that are measured by changes in net cash flows from operating activities and calculated as :  $TACCI_{i,t} = NOI_{i,t} - NCFO_{i,t}$  where: [2]  $TACCI_{i,t}$  = total accruals for the bank  $i$ , in year  $t$ .

$NOI_{i,t}$ , = net operating income for the bank  $i$ , in year  $t$ .

$NCFO_{i,t}$ = net cash flows from operating activities for the bank  $i$ , in year  $t$ .

(2) Estimating the model coefficients ( $\beta$ ) through which we reached the non-discretionary accruals. These estimates arrived by the regression for each bank (the study sample) per year (2010-2014), as follows:

$TACCI_{i,t}/At_{t-1} = \beta_1(1/At_{t-1}) + \beta_2(\Delta Rev.t - \Delta Rec.t)/At_{t-1} + \beta_3(PPE_{i,t}/At_{t-1}) + Et$  where: [3]

$TACCI_{i,t}$  = total accruals for the bank  $i$ , in the year  $t$ .

$At_{t-1}$  = total assets in the year  $t-1$

$\Delta Rev.t$  = changes in revenues from year  $t-1$  to year  $t$ .

$\Delta Rec.t$  = changes in receivables from year  $t-1$  to year  $t$ .

$PPE_{i,t}$  = total property, plant and equipment from year  $t-1$  to year  $t$ .

$Et$  = residual of the model.

$\beta_1$ ,  $\beta_2$ , and  $\beta_3$  = coefficients of the model. These coefficients are used as the residuals of the regression and considered as part of the total accruals. They are indicators of the estimated discretionary accruals and represented as the discretionary accruals divided by total assets for the past year.

(4) Identifying non-discretionary accruals ( $NDACCI_{i,t}$ ) for each bank of the sample in study. This is done for each year of the series (2010-2014) through the coefficients that were identified in step two above. This is done by the following formula:

$NDACCI_{i,t}/Ai_{t-1} = \beta_1(1/Ai_{t-1}) + \beta_2(\Delta Rev_{i,t} - \Delta Rec_{i,t})/Ai_{t-1} + \beta_3(PPE_{i,t}/Ai_{t-1})$  [4]

(4) Calculation of  $NDACCI_{i,t}$  for each bank applying the following formula:

$DACCI_{i,t} = TACCI_{i,t} - NDACCI_{i,t}$  [5]

(5) As a result of the last four steps we calculated the averages of the discretionary accruals during the series time period and then did the following comparison: (i) if the absolute values of the discretionary accruals in a certain year were higher than the average values then the bank considered as practicing fraudulence and given the symbol 1; and (ii) if the absolute values

of the discretionary accruals in a certain year were lower than the average values then the bank considered as not practicing fraudulence and given the symbol 0.

**Fraud Accounting:** Attempts made by the management of banks to reduce changing in time series of the announced income by applying accounting techniques without changing the actual and real transactions which generated profits. This is done by transferring expenses and revenues from one period to another; or distorting these items by changing their classifications in income statements (Silverstone & Davia, 2005).

**Big Bath Accounting:** A way used by the management of banks to get rid of all losses in a bad year (not profitable year) when facing radical reduction in profits, thus, recognizing recurring and nonrecurring future expenses this year with the aim of reducing the current year's income (Stolowy & Breton, 2004).

**Bank Size:** The current study hypothesized differences on the impact of applying MJ's or Leuz et al. models on detecting fraudulent practices in listed banks in the DSE that is attributed to the bank's

size. The bank size was measured by total revenues of the bank (Hovey & Naughton, 2003).

**RESULTS AND DISCUSSION**

Findings of this research were shown in tables 1 to 7. Table 1 referred to the matrix of Pearson coefficients among independent variables. The results shown in this table indicated that the correlation coefficient ( $\beta$ ) is less than 25% meaning that there is no conformity between these two independent variables.

In order to test the research hypotheses for the sample of 11 banks, the two models on the number of observations 55 (11 banks  $\times$  5 years) were applied with the following classification: the bank/s that practice fraudulence given number 1 ; and the bank/s that did not practice fraudulence given 0. The aim is to separate those banks that were practicing fraudulence from those that were not. Results shown in Table 2 pointed to the increasing number of banks that are practicing fraudulence in the Syrian context (50 banks; and 91%).

Table 1  
*Matrix of Pearson coefficients in banks during the period from 2010–2014*

Independent variables	Leuz et al. Model	MJ Model
Leuz et. al. Model	1	0.154
MJ Model	0.154	1
	0.215	
No. of observations	11	11

Table 2  
Results related to the no. of banks that practicing fraudulence

Total no. of observations	No. of practicing fraudulence	% of practicing fraudulence	No. of non practicing fraudulence	% of non-Practicing fraudulence
55	50	91%	5	9%

Table 3  
Results of the research hypothesis test -h01

Result of testing H01	Times of practicing fraudulence	% of Fraudulence	Chi Square ( $\chi^2$ )	Sig.	No. of observations
55	50	91%	36.06%	50	Rejected

Note: The decision rule stated that if sig. is less than 5% then rejected the null hypothesis and the vice versa is true.

Table 4  
Results related to the number of banks that practicing fraudulence - h02

Total no. of observations	No. of practicing fraudulence	% of practicing fraudulence	No. of non-practicing fraudulence	% of non-practicing fraudulence
55%	27	49%	28	51%

In order to find out the significant effect of the sample of banks that practiced fraudulence, as shown in the aforementioned table 2, the Chi Square ( $\chi^2$ ) test was run, where  $P$ -value represented the percentage of banks that practiced fraudulence in the DSE, and the results are shown in Table 3.

Table 3 indicated that there is a significant impact (where  $\chi^2=36.06$ ; and sig. = 0.000) of applying the Leuz et al. model on detecting fraudulent practices (FA and BBA) in listed banks at the DSE (H01). Unlike results from Kaminski's study, who used the univariate analysis (Kaminski, Sterling,

Wetzel, & Liming, 2004), this research found the effectiveness of the Leuz et al. model (the use of multivariate analysis) that compounded ratios in detecting fraudulent practices in listed banks in the DSE.

As for the second hypothesis (H02) Table 4 identified the classification of the research sample using the MJ model with the low number of banks that were practicing fraudulence (27 banks; and 49%).

In order to test this hypothesis (H02) and the significant effect of the sample of banks practiced fraudulence the Chi Square ( $\chi^2$ ) test was run where  $P$  value represented

Table 5  
*Results of the research hypothesis test -h02*

No. of observations	Times of practicing fraudulence	% of practicing fraudulence	Chi Square ( $\chi^2$ )	Sig.	Result of testing H02
55	27	49%	6.04	0.002	Rejected

Note: The decision rule stated that if sig. is less than 5% then rejected the null hypothesis and the vice versa is true.

the percentage of banks that practiced fraudulence in the DSE, and the results shown in Table 5.

Results shown in Table 5 pointed to the significant impact ( $\alpha = 0.002$ ) of applying MJ model on fraudulent practices by the management of listed banks at the DSE. Thus, there is impact of applying the MJ model on detecting accounting fraudulent practices. This implied that although the MJ model is effective on detecting accounting fraudulence but the Leuz et al. model is more effective on detecting accounting fraudulent practices in the Syrian environment. This result may be justified through the process of decision-making adopted by different qualified members of the management in Syrian banks. Moreover, the statistical models, such as the Leuz et al. model, have more impact since their parameters that can detect more fraudulent practices than mathematical models, such as the MJ model. This implication is important and in line with Islam, et al.'s study (Islam, Ruhani, & Zamri, 2011).

Findings related to the third hypothesis (H03) on whether the impact of applying the Leuz et al. model on fraudulence is

moderated by the bank size. Based on prior studies (Hovey & Naughton, 2003, p. 121) the bank size was measured by total revenues of the bank. This hypothesis was tested by one-way ANOVA test and the results shown in Table 6.

The results shown in Table 6 indicated that the significance is less than 5% (sig.= 0.004) and confirmed the interpretation power of the regression model which led to the rejection of the null hypothesis H03, meaning that there are differences (sig.= 0.004) on the impact of applying the Leuz et al. model on detecting fraudulent practices (FA and BBA) in listed banks at Damascus stock exchange (DSE) attributed to the bank size.

Similarly, findings of the fourth hypothesis (H04) on whether the impact of applying the MJ model on fraudulence is moderated by the bank size. This hypothesis was tested by one-way ANOVA test and the results shown in Table 7.

The results shown in Table 7 indicated that the significance is less than 5% (sig. = 0.000) and confirmed the interpretation power of the regression model which led to the rejection of the null hypothesis H04,

Table 6  
Results of 1- way anova for the research hypothesis -h03

Result of testing H03	dF	F	Sig.	Sum of square / Model
96.1/ Regression 962.4/Residual	1 54	9.14	0.004	Rejected

Note: The decision rule stated that if sig. is less than 5% then rejected the null hypothesis and the vice versa is true.

Table 7  
Results of one- way anova for the research hypothesis-h04

Sum of square / Model	df	F	Sig.	Result of testing H04
4.27E20/ Regression 7.82E20/Residual	1 54	51.03	0.000	Rejected

Note: The decision rule stated that if sig. is less than 5% then rejected the null hypothesis and the vice versa is true.

meaning that there are differences (sig. = 0.000) on the impact of applying the MJ model on detecting fraudulent practices (FA and BBA) in listed banks at the DSE attributed to the bank size.

## CONCLUSION

1- There are significant indications of practicing fraudulent accounting by the management of Syrian banks listed in the DSE. Results showed that the significant indication was more when applying the Leuz et. al.'s model (91% of fraudulence practices; and sig. =0.000) compared with the MJ's model (49% of fraudulence practices; and sig.= 0.002). Thus, exaggerating provisions, expenses and losses; slack credit granting to clients; and distorting classification

of current expenses and revenues, were common fraudulent accounting practices in Syrian banks listed at the DSE. This implied that there is a need to update governance and procedures issued by the Syrian central bank and the SEC and ensure the full application of IAS and IFRS.

2- Although similar significant levels found in applying modern financial models ( $\alpha \leq 0.05$ ) a different prediction power occurred when applying the two models (the Leuz et. al. and the MJ models). This implied that despite both models used cash flows from operating activities the Leuz et al. model included a statistical parameter with a higher prediction power compared with the MJ model that included a mathematical parameter. It also implied

the existence of constraints factors, such as unqualified and lack of independence of auditing committees', board of directors', external and internal auditors' in detecting fraudulent accounting practices committed by the management of Syrian banks.

3- Syrian banks were practicing accounting fraudulence differently. Results showed that the management with a higher bank size attempted to practice accounting fraudulence more compared with a lower bank size. This implied that the bank's size has a moderating effect, and a positive relationship, on committing accounting fraudulence and, accordingly, there is need to train people at higher management levels, whether within banks or who are in the governor's position, who are involved in accounting and audit areas in the Syrian context.

The current study recommended the following:

1. There is a need to reduce the gap between the tax-based income and the accounting-based income by creating other ways of detecting and preventing fraudulent accounting practices in economic activities.

2. More harmonization is needed between the SEC, the central bank, and other governmental agencies to reduce different conflicting instructions and updating formal procedures in accounting and audit professions and to apply the benchmarking strategy, such as the Sarbanes Oxley Act.

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## **Alcohol Perception and its Economic Impact - A Study among Males in Rural Areas**

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### **ABSTRACT**

Alcoholic beverages have been a part of social life for millennia and it has been difficult for the societies to understand and restrain its use. Health problems associated with alcohol consumption have reached alarming levels, and alcohol use contributes to a wide range of diseases, health conditions and high-risk behaviors, mental disorders, loss of productivity, road traffic injuries, liver diseases and spousal violence. Although the prevalence of alcoholism among rural males has been reported, there is a lack of information regarding the prevalence of various types of alcoholism and problem drinking along with the psychosocial and economic aspects of drinking, especially in this part of the region. To highlight these problems the various types of alcoholism and problem have been extensively analyzed in this study.

*Keywords:* Alcoholism, consequences, effect of alcoholism, health problems

### **INTRODUCTION**

Harmful use of alcohol leads to 2.5million death worldwide with 320,000 deaths in the age group of 15-29. Alcohol is one of the leading causes of death worldwide and it attribute to nearly 3.2% of all deaths and results in loss of nearly 4 % of total Disability-Adjusted life year (DALY)(World Health Organisation [WHO], 2014). It results in more deaths

in low income countries of 4.2% deaths as compared to high income countries of 1.6%. Worldwide, alcohol causes more harm to males (6.0% of deaths, 7.4% of DALYs) than females (1.1% of deaths, 1.4% of DALYs) reflecting differences in drinking habits, both in quantity and pattern of drinking.

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The link between alcohol consumption and its consequences is mediated by average volume of consumption and patterns of drinking, and the mediating biochemical mechanisms. Besides the direct loss of health due to alcohol addiction, alcohol is responsible for approximately 20% of deaths due to motor vehicle accidents, 30% of deaths due to oesophageal cancer, liver cancer, epilepsy and homicide, 50% of deaths due to liver cirrhosis and 8.8% of deaths due to psychological illness. It has been estimated that 30% of homicides and 10% of suicides are due to alcohol (WHO, 2009).

The Alcohol in recent times has emerged as important source of revenue generation for most of the states and has been an important commodity of international trade. Analyses of the economic impact of alcohol use, abuse, and dependence can provide important information to policymakers and program planners charged with making decisions about resource allocation. Such studies can be a useful indicator of the magnitude of a health care problem and how that problem compares with others. The economics of alcohol has a multidimensional approach looking from the consumption patterns both at the national level, the stake-holders level and at the individual level. Mere estimation of the alcoholics in a community is not warranting without assessing the social, psychological menace it creates and measuring the economic burden it gives to the individual, family and in turn the entire nation. This prompts the importance of taking up this study which

will be an eye-opener for the public to get the awareness regarding the real burden of the alcoholism and to the policy makers, public health leaders and government agencies regarding the importance of focusing on the intervention and prevention strategies of alcoholism.

### **Alcohol Perception**

Alcoholic beverages can be viewed from several perspectives. To a market economist, beer, wine, spirits and other alcoholic beverages are one more category of consumer products. To a cultural anthropologist, alcoholic beverages are a widely-used medium of sociability. An economic analysis may be more interested in the price of the beverage than its percentage of alcohol content. An ethnographic analysis may be more interested in the symbolism and structure of the drinking occasion than in how much is being drunk. From a public health perspective, alcoholic beverages are an agent of morbidity and mortality.

### **Economic Impact**

Alcohol exerts a substantial economic burden worldwide and this economic burden of drinking is a major public health issue in the modern time. The need for estimates of the economic cost of alcohol is almost self-evident. This estimation is potentially a valuable source of information for policymakers, researchers and public health planners. In addition, it can be used to identify information gaps, research needs and adjustments to national statistical reporting systems (Baumberg, 2006). The

economic impact of alcoholism not just includes the cost of drink but it covers the whole spectrum of the burden it creates upon the family, society and the nation through its consequences. The costs incurred as a consequence of alcoholism is categorized into direct costs which include costs for hospitalization, alcohol costs, costs for physician visits and other health care expenditure, and special equipment and modalities for rehabilitation. The indirect costs include mortality costs, morbidity costs, alcohol related productivity loss, costs of gambling, mortgages and loans, criminal justice costs including drunken driving and damage to the property and the cost of interventions and treatment, not to mention the intangible costs due to family disruptions, neglected children and ruined families.

### **Prevalence of Alcoholism in India**

India was regarded as a 'dry' or 'abstaining' country; the impact of globalization appears to have resulted in a widespread attitudinal shift to greater normalization of alcohol use. Consequently, there has been a significant lowering of age of initiation of drinking. Varma, Malhotra and Dang (1985) reported that 41% prevalence of alcoholism among males in northern India, with 49.5% of alcoholics doing unskilled or semi-skilled work. Sundaram, Mohan, Advani, Sharma, and Bajaj (1984) reported the prevalence of alcoholism among rural males above 15 years as 36.1%. The same study also reported the vulnerable group for alcoholism as illiterate married men, in an age group of

20-35, living in a nuclear family and doing unskilled or semi-skilled occupation.

Ghulam, Rahman, Naqvi, and Gupta (1996) reported a prevalence of alcoholism among urban males above 18 years as 32.9%. Srinivasan and Augustine (2000) reported 20.5% prevalence of alcoholism among hospital patients. Hazarika, Biswas, Phukan, Hazarika, and Mahanta (2000) reported the prevalence of alcoholism among rural males in the border area of Assam and Arunachal Pradesh as 39.4%, with 47.4% of the illiterates.

Pillai et al. (2013) had reported 49% prevalence of alcoholism among rural males in Goa, with 14.3% of binge drinking. Coder et al. (2008) had reported 25.7% prevalence of alcoholism among male inpatients in a rural hospital. Satyanarayana, Chandra, Vaddiparti, Benegal, and Cottler (2009) reported a prevalence of 37% among males. Gladstone et al. had a finding of prevalence of alcoholism among rural males in Goa to be 59% (D'Costa et al., 2007). John et al. (2009) had reported the prevalence of alcoholism among rural males in Tamilnadu as 34.8%. This study also stated the prevalence of current drinkers to be 46.7%.

Nayak, Bond, Cherpitel, Patel and Greenfield (2009) assessed the alcohol related problems among males and came out with a 36% prevalence of among males aged 18-49 years. In that study, 21.1% of the alcoholics consumed daily, 28.3% consumed alcohol on weekly basis. Kavita, Gururaj and Benegal (2010) assessed the alcohol use among men and women in four

communities in Karnataka and had reported the prevalence of alcoholism among the males in the rural community to be 45%. In that study, 29.7% of the rural males consumed alcohol more than 4 days a week while 23.8% consumed on weekly basis. Pillai et al. (2014) had reported a prevalence of 39% among males in Goa with 7% binge drinking. Ghosh, Samanta and Mukherjee (2012) reported a prevalence of alcoholism among males in an urban slum in Kolkata as 65.8%. To highlight these problems the various types of alcoholism and problem have been extensively analyzed in this study.

## **METHODS**

### **Number of Study Participants**

The study was conducted in the rural area of Nemam in Thiruvallur district, Tamilnadu. Although there are numerous studies regarding alcoholism in Indian set up, most of them are hospital-based studies dealing with alcohol dependence patients. Of the few population-based studies, very few had assessed the various drinking levels and patterns prevailing in the community. As far the problem drinking, there are no studies in the state of Tamilnadu assessing the psychosocial problems of drinkers at the community level rather than assessing in the hospital setups. A study on alcoholism will be incomplete if it does not include the economic burden on the individuals and their families. Regarding the economic impact of alcoholism, there is only one study in India, by Benegal, Velayudhan and Jain (2000) which comprehensively assessed the burden of alcoholism. In this

context, the findings from this current study will be of immense value for drafting and developing an alcohol policy. The study area comprises 5 Panchayats, there were 16 villages included under the study area. Males of age 18 years and above, residing in the study area for more than 6 months were enlisted using voters list. They were found to be 8115. Among them, using probability proportion to size sampling method, equal weightage proportion was given to enlist the study population in each panchayat. The required study samples from each panchayat enumerated by the probability proportion to size sampling method, was selected using Simple Random Sampling method from the computer-generated table of random numbers. The data was collected over a period of 4 months, the Questionnaire was structured in 7 parts comprising demographic details of the participants, Standard of living index, AUDIT questionnaire (For screening alcoholism), Pattern and place of drinking, Questionnaire on economic impact of alcoholism, MAST questionnaire (For psycho-social impact and problem drinking) and Place and reason for healthcare seeking.

### **AUDIT (The Alcohol Use Disorders Identification Test)**

AUDIT can help identify excessive drinking as the cause of the presenting illness. It provides a framework for intervention to help risky drinkers reduce or cease alcohol consumption and thereby avoid the harmful consequences of their drinking. AUDIT also helps to identify alcohol dependence and some specific consequences of harmful

drinking. It is particularly designed for health care practitioners (Patton et al., 2014). The AUDIT was validated on primary health care patients in six countries and is the only screening tool of alcoholism accepted for international use. The AUDIT is so versatile that it can be used in the Primary health centers, General hospital out-patient clinics, Psychiatric hospitals, work place and even at the community level. It can either be self-administered or by oral-interview administration. It was developed and evaluated over a period of two decades, and it has been found to provide an accurate measure of risk across gender, age, and cultures. It consists of 10 questions; 3 pertain to hazardous alcohol use, 3 to dependence symptoms and 4 to harmful use. Scores range from 0 to 40. Scores greater than or equal to 8 indicate hazardous drinking and they are termed to be alcoholics.

### **MAST (Michigan Alcohol Screening Test)**

MAST is one of the widely-used questionnaires for assessing the problem drinkers (alcohol abuse). The MAST is a 25-item questionnaire designed to provide rapid and effective screening for lifetime alcohol related problems including the psychosocial and health problems (Mares, van der Vorst, Engels, & Lichtwarck-Aschoff, 2011). MAST appeared to be a valid instrument for discriminating problem drinkers from alcoholics. The MAST focuses on the consequences of problem drinking and, on the subjects', own perceptions of their

alcohol problems. Total scores for these 25 questions range from 0-54. Initially MAST has a cut-off value of 5 to be diagnosed as a problem drinker. But due to a greater number of false positive cases, at present, a MAST score of 13 and above is termed as a problem drinker.

### **Data Analysis**

Data entry and analysis of the variables was done using Statistical Package for Social Sciences (SPSS) version 16 software. Descriptive statistics were calculated for background variables including demographic and socio-economic characteristics, details of alcohol, its usage and prevalence of alcoholism. The 95% Confidence Interval was calculated for prevalence of alcoholism, pattern of drinking among alcoholics, prevalence of problem drinkers and for the psycho-social problems. Measures of dispersion were used for the data pertaining to the economic impact of alcoholism. Odds ratio was calculated with 95% Confidence Interval to evaluate the association between marital status, educational status, occupation and the standard of living index with that of alcoholism, alcohol dependence and problem drinking. Chi-square test was used as statistical test of significance. Independent t-test was applied to compare the mean alcohol-related expenses by alcoholics and normal drinkers.

## **RESULTS**

### **Frequency of Drinking**

The pattern of drinking by various types of the drinkers was assessed by comparing

their frequency, place and type of drinking. Majority of the normal drinkers (67.5%) usually drank monthly or less than monthly whereas alcoholics (61.7%) consumed on a weekly basis. Most of the problem drinkers (40.3%) consumed almost daily. On the number of drinks on a usual day of drinking, most of the normal drinkers (41.2%) would have stopped with 3-4 drinks while majority of the alcoholics (74.3%) and problem

drinkers (70.6%) consumed 5-6 drinks. (Table 1).

**Pattern of Drinking**

The pattern of drinking by various types of the drinkers was assessed by comparing their type of drink, place of drinking and the habit of concurrent tobacco use while drinking. On assessing the most sought-out

Table 1  
*Frequency of drinking*

Drinking characteristics	Normal drinkers		Alcoholics		Problem drinkers	
	N (114)	%	N (206)	%	N (119)	%
<b>Frequency of drinking</b>						
Monthly once or less	77	67.5	8	3.9	2	1.7
Monthly 2-4 times	37	32.5	127	61.7	52	43.7
Weekly 2-3 times	0	0	19	9.2	17	14.3
Weekly 4 times or more	0	0	52	25.2	48	40.3
<b>Number of drinks* on a day of drinking</b>						
1-2	21	18.4	1	0.5	1	0.8
3-4	47	41.2	30	14.5	15	12.6
5-6	46	40.4	153	74.3	84	70.6
7,8,9	0	0	20	9.8	19	16.0
>10	0	0	2	0.9	0	0
<b>Frequency of 6 or more drinks per occasion</b>						
Never	49	43.0	9	4.4	2	1.7

Table 1 (Continue)

Less than monthly	47	41.2	16	7.7	8	6.7
Monthly	18	15.8	31	15.1	6	5.0
Weekly	0	0	99	48.1	54	45.2
Daily or almost daily	0	0	51	24.7	49	41.2

\* 1 drink = 325ml of Beer/30ml of Spirits/ 140 ml Wine

drinks of the various drinkers, it was found that most of the normal drinkers (43.9%) preferred beer whereas alcoholics (79.1%) and problem drinkers (88.2%) preferred spirits (whisky, brandy). Normal drinkers (47.4%) usually drank in their home while alcoholics (63.1%) and problem drinkers (70.6%) preferred bar or wine shop to drink. Only 37.3% of normal drinkers used tobacco in concurrence with their drinking but 79.1% of alcoholics and 94.1% of problem drinkers concurrently used tobacco (Table 2).

#### Pattern of Drinking- AUDIT zone-wise

In this study, majority of the alcohol dependents (88.5%), binge drinkers (83.7%) and harmful drinkers (68.2%) preferred to drink sprits (whisky, brandy) whereas the normal drinkers (43.9%) preferred beer.

As per the place of drinking, majority of the normal drinkers (47.4%) drank in their home or in their friends' home. Majority of the harmful drinkers (54.1%), binge drinkers (72.1%) and alcohol dependents (67.9%) preferred to drink in bar or wine shops. Among the normal drinkers 37.7% has the habit of tobacco consumption while 93.6% of the alcohol dependents have concurrent tobacco use (Table 3).

#### Age-wise pattern- Frequency of drinking

Among the younger age group, 59.5% of the current drinkers in the age group of 18-24 and 72.5% in the age group 25-34 years used to drink on weekly basis (i.e.) up to 4 times

Table 2  
Pattern of drinking

Pattern	Normal drinkers		Alcoholics		Problem drinkers	
	N (114)	%	N (206)	%	N (119)	%
<b>Type of drinks</b>						
Spirits (Whisky, Brandy)	45	39.5	163	79.1	105	88.2
Beer	50	43.9	12	5.8	2	1.7
Others	19	16.7	31	15.1	12	10.1

Table 2 (Continue)

<b>Place of drinking</b>						
Bar / Wine shop	29	25.4	130	63.1	84	70.6
Home / Friend's home	54	47.4	35	16.9	13	10.9
Public place	31	27.2	21	10.2	3	2.5
Work place	0	0	20	9.8	19	16.0
<b>Concurrent tobacco use</b>						
Yes	43	37.7	163	79.1	112	94.1
No	71	62.3	43	20.9	7	5.9

Table 3  
AUDIT zone-wise pattern of drinking

<b>Particulars</b>	<b>Zone 1</b>		<b>Zone 2</b>		<b>Zone 3</b>		<b>Zone 4</b>	
	N (114)	%	N (85)	%	N (43)	%	N (78)	%
<b>Type of drinks</b>								
Spirits (Whisky, Brandy)	45	29.6	58	68.3	36	83.7	69	88.5
Beer	50	43.9	11	12.9	0	0	1	1.2
Others	19	16.7	16	18.8	7	16.3	8	10.3
<b>Place of drinking</b>								
Bar / Wine shop	29	25.4	46	54.1	31	72.2	53	67.9
Home / Friend's home	54	47.4	23	27.1	8	18.7	4	5.1
Public place	31	27.2	16	18.8	3	5.8	2	2.6
Work place	0	0	0	0	1	2.3	19	24.4
<b>Concurrent tobacco use</b>								
Yes	43	37.7	55	64.7	35	81.4	73	93.6
No	71	62.3	30	35.3	8	18.6	5	6.4

a month. Among the middle-aged current drinkers, 39.4% in the age group 35-44 and 36.7% in 45-54 years had consumed alcohol 2-4 times a month. Among the elderly, 37% in the age group 55-64 and 42.1% above 65 years used to drink 4 or more times a week (Table 4).

#### Age-wise pattern-Number of drinks on a day of drinking

In this study, among the younger age group, 48.6% in 18-24 years age group had consumed 3-4 drinks on a day of drinking, whereas 72.5% in 25-34 age group had

consumed 5-6 drinks. In the middle-aged men, 78.9% in 35-44 age group and 71.4% in 45-54 age group consumed 5-6 drinks on a drinking occasion. Among elderly, in 55-64 years age group, 66.7% had consumed 5-6 drinks while 47.4% of the men above 65 years, used to take 3-4 drinks on a drinking day (Table 5).

#### Economic Impact of Alcoholism

In this study, the economic impact of the alcohol was calculated for all the current drinkers (320). The economic impact of drinking was classified into cost of drinking

Table 4

*Age-wise pattern- Frequency of drinking*

Age of the Participants	Monthly or Less		Monthly 2-4 Times		Weekly 2-3 Times		Weekly 4 Times/more		Total %
	N	%	N	%	N	%	N	%	
18-24	27	36.5	44	59.5	2	2.7	1	1.4	100
25-34	14	17.5	58	72.5	4	5.0	4	5.0	100
35-44	23	32.4	28	39.4	3	4.2	17	23.9	100
45-54	15	30.6	18	36.7	4	8.2	12	24.5	100
55-64	4	14.8	11	40.7	2	7.4	10	37.0	100
65 and above	2	10.2	5	26.3	4	21.1	8	42.1	100

Table 5

*Age-wise pattern- Number of drinks on a day of drinking*

Age of the Participants	1 or 2		3 or 4		5 or 6		7,6,9		More than 10		Total %
	N	%	N	%	N	%	N	%	N	%	
18-24	14	18.9	36	48.6	24	32.4	0	0	0	0	100
25-34	4	5.0	15	18.8	58	72.5	3	3.8	0	0	100
35-44	2	2.8	4	5.6	56	78.9	9	12.7	0	0	100

Table 5 (Continue)

45-54	2	4.1	7	14.3	35	71.4	4	8.2	1	2.0	100
55-64	0	0	6	22.2	18	66.7	2	7.4	1	3.7	100
65 and above	0	0	9	47.4	8	42.1	2	10.5	0	0	100

and the alcohol-impact expenses (Sacks, Gonzales, Bouchery, Tomedi, & Brewer, 2015). Cost of drinking includes the cost of alcohol, refreshments, travel expenses and cost of tobacco.

Alcohol-impact expenses include health costs (costs for injuries and hospital admission), work related expenses (loss of pay due to absenteeism and borrowing in work place) and social costs (debts, mortgages, gambling and damage to properties) (Igumnov & Osipchik, 2012). The cost of drinking including the expenses for alcohol related consequences for a current drinker of alcohol was found to be 21,053 INR (Indian Rupee Rate) during the study period of past 12 months.

A current drinker, on an average had spent 11,498 INR for his drinks and refreshments and 3,273 INR for his health expenses in the past 12 months. On the account of the burden of drinking behavior on a current drinker, the workplace related expenses amounted to 14,046 INR and the social costs amounted to 12,632 INR. But due to the wide range in the spending for various expenses, median values were considered instead of mean values. Hence, a current drinker of alcohol in this study, spent around 8,250 INR for his drinks and refreshments and 15,000 INR for the alcohol-related consequences, which

include health cost (1,200 INR), social costs (6,250 INR) and work place related expenses (12,500 INR) in the past 12 months. (Table 6)

**DISCUSSION**

**Comparison of Alcohol-related Expenses between Alcoholics and Normal Drinkers**

In this study, the mean amount spent on alcohol related expenses by the alcoholics and the normal drinkers were compared using independent t-test. An alcoholic on an average spent 1,537 INR for his health expenses due to alcohol related problems as compared to a normal drinker who had spent 65 INR. The difference is found to be statistically significant ( $p < 0.0001$ ). On comparing work expenses, an alcoholic had a work expense (loss of pay due to absenteeism and expense out of borrowed money) of 9,887 INR whereas a normal drinker had an expense of 246 INR. The difference is found to be statistically significant ( $p < 0.0001$ ). An alcoholic on an average had an alcohol-impact expense of 15,233 INR while the same expense for a normal drinker was found to be 388 INR. The difference is found to be statistically significant ( $p < 0.0001$ ) (Table 7).

**Proportion of Annual Income Spent on Alcohol**

Table 6  
*Monetary cost of drinking (12 months)*

Expenses	Number of Drinkers	Mean (INR)	Median (INR)	Range (INR)	
				Minimum	Maximum
Health Related	99	3,273	1,200	50	24,050
Workplace Related	147	14,046	12,500	1,000	62,500
Loss of Pay	139	13,809	12,500	1,000	62,500
Expenses out of Borrowed Money	56	3,086	2,500	1,000	10,000
Social Expense	60	12,632	6,250	750	1,00,000
Alcohol Impact	180	17,679	15,000	50	1,06,500
Alcohol	320	11,498	8,250	800	58,400
Alcohol Alone	320	6,794	3,675	400	47,450
Food	318	1,821	1,225	100	7,000
Tobacco	206	4,066	5,000	100	10,500
Expenses for Alcohol and Alcohol-impact	320	21,053	13,400	800	1,30,000

Table 7  
*Comparison of alcohol-related expenses between alcoholics and normal drinkers*

Alcohol Related Expenses	Alcoholics	Normal Drinkers	P Value
Health Expenses	1,537	65	0.0001
Work Expenses	9,887	246	0.0001
Social Expenses	3,636	77	0.0003
Alcohol Impact Expenses	15,233	388	0.0001

Current drinkers spent 13.4% of their annual income for alcohol and alcohol-related expenses. On stratifying them based on their standard of living index, large difference is found on the proportion of annual income spent on alcohol (Shimotsu et al., 2013). Current drinkers having high standard of living, spent only 6.3% of their

annual income for alcohol and alcohol related expenses whereas those having low standard of living spent 36.2% of their annual income (Table 8).

#### **Behavioral Problems Perceived by the Alcoholic and his Family**

In this study, 72.8% of the alcoholics had

Table 8  
*Proportion of annual income spent on alcohol*

Particulars	Number of subjects	Mean Annual Income (INR)	Mean Alcohol Expense (INR)	Proportion of Annual Income (%)
Low SLI	55	1,02,218	37,039	36.2
Middle SLI	138	1,38,652	22,348	16.1
High SLI	127	2,00,692	12,722	6.3
Current Drinkers	320	1,57,012	21,053	13.4

a false perception that they were just a normal drinker. Ghosh et al. (2012) had a similar finding were 84% of the alcoholics had this perception. Ironically 93.7% of the alcoholics were not seeking help from anyone regarding their drinking problem. In this study, 73.3% of the alcoholics were unable to limit their drinking to certain places and time while 56.8% of them were unable to stop with one or two drinks. These findings revealed the level of dependence the rural men were reeling under the alcohol. These problems tempt them to do binge drinking, drink at public places and workplace drinking which would lead to social and legal issues.

## CONCLUSION

Findings from this study reveal the magnitude of the alcohol menace among the rural males in India. With one half of the rural males be drinkers and one-third to be alcoholics, the burden it gives to the family and society is huge. Psychosocial problems along with the health problems faced by the alcoholics not only affect himself but also his family and in turn the society. With one-fifth of the rural males are problem drinkers, the burden

it generates is substantial. With majority of rural population having low standard of living, a current drinker by spending a hefty portion of his annual income for alcohol and alcohol related expense, further depletes his economic status. This study gave an opportunity to assess the various levels of drinking prevailing in a rural community and also portray the psycho-social and economic burden faced by the drinker. The finding of high prevalence of alcoholism and problem drinking among rural males and the magnitude of psychosocial and economic impact on them warrants the need for a cost-effective, community-based alcohol policy at the national level.

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## Does Country Risk Affect FDI to GCC Countries?

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### ABSTRACT

This paper examines the long-and short-term impacts of country risk on FDI using co-integration and error correction models in GCC countries for the period from 2002 to 2015. We use three proxies for country risk: corruption, regulatory quality and political stability and absence of violence. The evidence suggests a positive long-term impact of fighting corruption and improving political stability and absence of violence on the attractiveness of host countries to FDI. Surprisingly, quality of regulations variable negatively affects FDI. The results of our study suggest that policy makers could attract more FDI to GCC countries through directing efforts toward combatting corruption and enhancing political stability which may help GCC economies attract more FDI.

*Keywords:* Country risk, corruption, FDI, political stability, regulatory quality

### INTRODUCTION

Many academics and politicians argue that Foreign Direct Investment (FDI) is beneficial to finance economic growth and create job opportunities in the host economies. The volume of FDI flow to host countries usually reflects the attractiveness of this country to foreign investors. FDI is considered more risky than short credits and portfolio investments because projects undertaken by Multinational Corporations (MNCs) are usually costly, irreversible and very difficult to sell. Hence, MNCs consider all types of risks when they decide to invest in a country and country risk is one of those crucial risks in developing countries.

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Country risk refers to political risks that affect MNCs at the project or corporate level but originate at the country level (Eiteman, Stonehill, & Moffett, 2010). As country risk increases, the uncertainty of investors and firm's managers increases which consequently increases the return required by investors. This will consequently decrease managers' desire to carry out FDI. According to the International Country Risk Guide (ICRG) published by the Political Risk Services (PRS) Group, country risk includes political risk, financial risk, and economic risk.

On the theoretical side, several studies analyzed FDI by incorporating the concept of country risk into the model (Aizenman & Marion, 2004; Albuquerque, 2003; Broll & Zilcha, 1992; Marjit, Broll, & Mallick, 1995; Raff & Srinivasan, 1998; Schnitzer, 1999; Straub, 2008; Thomas & Worrall, 1994). They suggest that lower country risk should attract more FDI. However, the empirical investigation on the relationship between FDI and country risk (Abadie & Gardeazabal, 2008; Asiedu, Jin, & Nandwa, 2009; Bevan & Estrin, 2004; Carstensen & Toubal, 2004; Fosfuri, 2004; Janicki & Wunnava, 2004; Mancuso, Dirienzo, & Das, 2010; Mody & Srinivasan, 1998; Wheeler & Mody, 1992; Yang, 2008) has shown mixed and conflicting results.

There are two main strands in the literature that explains FDI location decision. The first strand is based on external factors while the other relates this decision to internal factors. Among the early attempt to link FDI location decision to external factors

are classical and neo-classical economists who recognise immobility of assets and least cost theory as determinants of location attraction. Also, Industrial organizational theory focuses on environment and industry-based factors of attraction in explaining the strategic location decision of firms. However, the eclectic paradigm of Dunning (2001) states that firms have a triangle of interrelated advantages that determine the extent and pattern of international production at any one time. One of those advantages is the location attractiveness of an area for undertaking the value-adding activities of MNEs, such as the existence of raw materials and low wages. Agglomeration economics and cluster theory explains FDI location decision based on the unevenness of natural resources and, more generally, production factors across locations (Fujita & Thisse, 2002). In addition, factor endowments-based trade theory argues that FDI is attracted to countries with lower wages and more abundant natural resources. The new trade theory suggests that the main driving forces of FDI are economies of scale, and agglomeration effects often play a crucial role.

Center to this article is the role of host institutions in FDI location decision. The industrial organization theory argues that firms' FDI location choice is guided by not only industry and markets but also institutions. Hence, institutions influence the FDI location choices of MNEs in a number of ways. First, the institutional environment directly affects

the operating environment for business through barriers to market entry, regulatory conditions and taxation systems. Such factors will increase cost and inefficiencies and are likely to deter FDI (Habib & Zurawicki, 2002; Robertson & Watson, 2004). Second, unreliable institutional environment will increase uncertainty and reduce environment predictability (Buthe & Milner, 2008). However, institutions may play a supportive role in attracting FDI, by providing regulatory or financial incentives.

The empirical evidence on the impact of country risk on FDI, however, is mixed. Many articles suggest that country risk and its components have no impact on FDI. For example, Wheeler and Mody (1992) and Busse and Hefeker (2007) found that corruption was insignificant determinant of FDI. Noorbakhsh, Paloni, and Youssef (2001) found no significant effect of democracy and political risk on FDI. On the same vein, Asiedu (2002) found insignificant impact for political expropriation risk on FDI. Also, Kolstad and Tondel (2002) found that government stability, bureaucracy, external conflicts, legal order, and military power in politics did not affect FDI. Busse and Hefeker (2007) could not find significant impact of corruption on FDI. More recently, Iloie (2015) found no link between country risk, FDI and corruption for 14 countries in Central and Eastern Europe.

The overwhelming evidence, however, suggests that an aggregate measure of country risk and its components negatively affect FDI. For instance, Gastanaga, Nugent

and Pashamova (1998) found that lower corruption levels and less expropriation risk significantly led to higher FDI. Moreover, Daude and Stein (2007) found positive and significant relationship between institutional quality and FDI. Busse and Hefeker (2007) found that government stability, internal and external conflicts, corruptions and ethnic tensions, law and order, democratic accountability of the government and the quality of the bureaucracy were very significant determiners of FDI. Furthermore, Hayakawa, Kimura, and Lee (2013) suggested that socio-economic conditions, investment profile and external conflict were the strongest determinants of FDI. Likewise, Baek and Qian (2011) found that high level of accountability and better investment profile positively affected FDI. Similarly, Sedik and Seody (2012) found that regulatory quality seemed to have positive and significant effects on FDI. Furthermore, Erkekoglu and Kilicarslan (2016) found that better regulatory quality significantly attracted more FDI.

Surprisingly, a number of articles document that higher country risk attracts more FDI. For example, Sedik and Seody (2012) found that higher level of political risk positively and significantly affect FDI. Moreover, the evidence from Subasat and Bellos (2013) suggested that poor regulations encouraged FDI as they showed that regulatory quality variable had a negative and marginally significant impact on FDI. Besides, Kolstad and Tondel (2002) documented a positive impact of corruption on FDI. Moreover, Erkekoglu

and Kilicarslan (2016) found that an increase in political stability and absence of violence and management effectiveness had reduced the FDI.

While the country risk impact on FDI flows to developing countries has been analyzed extensively, it is surprising that research on the long-term and short-term relationships between country risk and FDI has received rather limited attention. Hence, the contribution of this article is twofold. First, it uses co-integration and error correction models to test the long and short-term impacts of country risk on FDI. Second, previous studies use large sets of countries to examine the impact of country risk on FDI. This gives contradictory and difficult to interrupt results. Hence, we investigate the long and short-term impacts of country risk on FDI in a homogeneous set of oil producing countries of Gulf Cooperation Council (GCC) countries.

GCC countries share similar characteristics whether economically or politically. Economically, GCC countries have a great dependency on hydrocarbon exports which makes them exposed to their price shocks. Moreover, most of the inward FDI to them concentrates in the oil industry (Ramady, 2013). Those countries also share almost similar regulatory and law frameworks and governmental institutions. They are surrounded by unstable neighbors who largely affected by the Arab Spring started in 2011. Therefore, understanding the factors affecting FDI to GCC countries is very crucial for policymakers to ensure the welfare of GCC citizens and stability in the countries.

In the present paper, we use three proxies for country risk; corruption, regulatory quality measured by investment profile, and political stability and absence of violence measured by government stability, internal conflict, external conflict, ethnic tensions, in addition to a set of control variables. Using panel co-integration test, we find that a lower level of corruption and better quality of regulations increase FDI. Moreover, the increase in GDP growth leads to larger FDI. Surprisingly, political instability and violence attracts more FDI to GCC countries. This can be explained by the fact that foreign firms consider political instability and violence transitory and short lasting and MNEs react by increasing their FDI in GCC countries. Error correction model proves a short run positive impact of GDP growth on FDI flow to GCC countries.

The remainder of this paper is organized as follows. The following section describes the examined variables and methodological framework used to explore the impact of country risk on FDI. Next, we report and discuss our main empirical results. Then, we conclude and suggest some policy implications and venues for future research.

## **METHODOLOGY**

This research examines the impact of Political Risk on FDI on GCC countries which includes United Arab Emirates, Saudi Arabia, Bahrain, Qatar, Kuwait, and Oman. The examined variables were collected from two sources: economic variables were collected from World Bank database while country risk variables collected from International Country Risk

Guide (ICRG) provided by Political Risk Services group (PRS) from 2002 until 2015. This paper used three indexes for country risk; corruption, regulatory quality and political stability and absence of violence. The scale of risk indexes range from 0 to 1, the lower value indicates higher risk and vice versa.

Figure 1 illustrates the level of FDI net inflows (FDI as % of GDP) to GCC countries during the period 2002 to 2015. It shows that Bahrain enjoys the highest average FDI as percentage of GDP with 4.925%. In contrast, Kuwait has the lowest average FDI inflows with 0.575% of its GDP. The remaining four countries record almost the same percentage of FDI to GDP.

We use panel data techniques to test the effect of political risk on FDI including the unit root test, co-integration test, and error correction model. The error correction model used in this research can be expressed in two equations; Equation [1] represents the long-term model while equation [2] tests the short-term model.

$$FDI_t = a_0 + \sum_{j=1}^{p_i} \varphi_1 FDI_{i,t-j} + \sum_{j=1}^{p_i} \varphi_2 CRI_{i,t-j} + \sum_{j=1}^{p_i} \varphi_3 G_{i,t-j} + \sum_{j=1}^{p_i} \varphi_5 ST_{i,t-j} + \sum_{j=1}^{p_i} \varphi_4 OP_{i,t-j} + \varepsilon_{i,t} \quad [1]$$

$$\Delta FDI_t = a_0 + \sum_{j=1}^{p_i} \beta_1 \Delta FDI_{i,t-j} + \sum_{j=1}^{p_i} \beta_2 \Delta CRI_{i,t-j} + \sum_{j=1}^{p_i} \beta_3 \Delta G_{i,t-j} + \sum_{j=1}^{p_i} \beta_4 \Delta ST_{i,t-j} + \sum_{j=1}^{p_i} \beta_5 \Delta OP_{i,t-j} + \lambda_1 ECT_{i,t-j} + \varepsilon_{i,t} \quad [2]$$

Where:

FDI: represents net inflows of foreign direct investment as proportion of gross domestic product,

CRI: country risk index (as measured by corruption index CC, regulatory quality RQ or political stability and absence of violence PV),

G: economic growth measured by annual percentage growth rate of GDP at market prices based on constant local currency,

OP: trade openness measured by the ratio of imports to GDP (% of GDP) and

ST: is the number of start-up procedures to register and start a business.

$\varphi_i$  represents the coefficients on long-run for research variables, and the  $\beta_i$

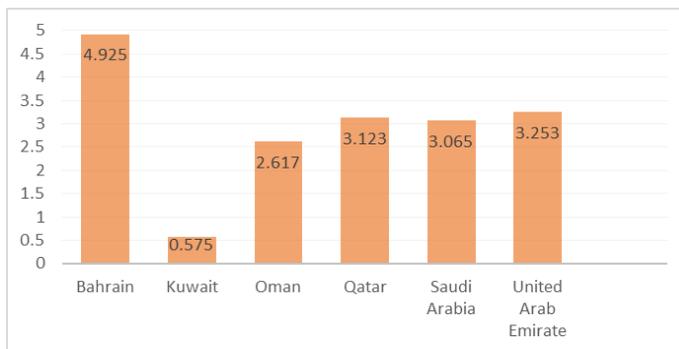


Figure 1. Average FDI (as % of GDP) to GCC countries

represent the coefficients on short- run. Where  $i=1, \dots, N$  represents cross sectional panel members, over period  $t$ .  $p_i$  is the number of lag.

ECT is the error correction term lagged one period obtained from the long-run equation. It represents the adjustment coefficient, and must be significant, negative, less than one to prove the long-run relationship.

$\varepsilon_t$  is serially uncorrelated disturbance with zero mean and a constant variance.

## RESULTS AND DISCUSSION

Table 1 contains a summary of descriptive statistics for all research variables including the mean, median, standard deviation and Jarque-Bera test. It can be seen that Bahrain has recorded the highest average percentage for FDI to GDP (FDI) amongst GCC countries of 4.925%, followed by United Arab Emirates 3.253%, Qatar 3.123%, Saudi Arabia 3.065%, Oman 2.617%, Kuwait 0.575%.

Qatar has reached an extraordinary annual average economic growth of 11.542%, which is the highest among all GCC economies. United Arab Emirate and Oman have the lowest annual average economic growth with 4.558% and 3.211% respectively. United Arab Emirate outperforms the rest of GCC economies in terms of openness as measured by the percentage of imports to GDP with an annual average of 63.714 % followed by Bahrain 54.717%, Oman 38.079%, Saudi Arabia 30.657%, Qatar 29.613% and Kuwait 29.236%. Qatar has the lowest

annual average value of regulatory quality index with 0.816 while Oman and United Arab Emirate have the highest annual average amongst GCC countries with 0.927 and 0.921 respectively.

We can note from Table 1 that all GCC countries have achieved high average values of the political stability and absence of violence index. The United Arab Emirates, Qatar and Oman have the highest values of 0.848, 0.845, and 0.821 respectively. Bahrain, Kuwait and Saudi Arabia have the lowest values of 0.768, 0.762, and 0.762 respectively. Likewise, the annual average of corruption index is nearly the same between GCC countries. Qatar, United Arab Emirates and Kuwait have the highest annual average with 0.448, 0.447 and 0.442 respectively. However, Oman, Bahrain and Saudi Arabia have the lowest annual average of 0.426, 0.383 and 0.380 respectively.

We apply normality test to all variables using Jarque-Bera test. The results show that the null hypothesis of normality cannot be rejected for all the variables across all GCC countries (except regulatory quality for Oman and Qatar, FDI for Bahrain, and corruption index in Oman). Therefore, we can conclude that almost all the variables in all the GCC countries follow the normal distribution.

Table 2 presents the correlation matrix between the tested variables. The correlation coefficients between regulator quality (RQ) and FDI is positive and significant at 10% which indicate a positive relationship between the variables. Similar positive relationship between political stability and

Table 1  
*Descriptive analysis for research variables*

	RQ	PV	CC	FDI	ST	OP	G	
	Mean	0.912	0.768	0.383	4.925%	7.000	54.717%	5.142%
	Median	0.950	0.780	0.330	3.006%	7.000	56.028%	5.412%
Bahrain	Std. Dev.	0.062	0.088	0.074	4.024%	0.000	7.244%	1.862%
	Jarque-Bera	3.265	0.683	2.030	7.062	NA	1.294	0.575
	Probability	0.195	0.711	0.362	0.029	NA	0.523	0.749
	Mean	0.858	0.762	0.442	0.575%	12.69	29.236%	4.883%
	Median	0.910	0.740	0.500	0.289%	13.000	28.317%	5.991%
Kuwait	Std. Dev.	0.106	0.073	0.072	0.717%	0.480	3.669%	6.526%
	Jarque-Bera	1.719	1.185	1.717	2.024	2.427	0.949	0.100
	Probability	0.423	0.553	0.423	0.363	0.297	0.621	0.951
	Mean	0.927	0.821	0.426	2.617%	8.461	38.079%	3.211%
	Median	0.950	0.840	0.420	2.120%	8.000000	37.1806%	3.913%
Oman	Std. Dev.	0.050	0.027	0.022	2.318%	2.503	7.371%	3.335%
	Jarque-Bera	31.63	5.990	57.239	1.800	2.005	0.914	0.723
	Probability	0.000	0.050	0.000	0.406	0.366	0.632	0.696

Table 1 (Continue)

		RQ	PV	CC	FDI	ST	OP	G
Qatar	Mean	0.816	0.845	0.448	3.123%	7.500	29.613%	11.542%
	Median	0.820	0.850	0.420	3.250%	7.000	28.876%	9.725%
	Std. Dev.	0.013	0.0169	0.108	2.622%	0.650	3.718%	7.479%
	Jarque-Bera	73.90	4.100	2.846	0.682	1.813	0.948	1.197
	Probability	0.000	0.129	0.241	0.710	0.403	0.622	0.549
Saudi Arabia	Mean	0.893	0.762	0.380	3.065%	14.642	30.657%	5.430%
	Median	0.910	0.770	0.330	2.048%	13.000	30.499%	5.481%
	Std. Dev.	0.0297	0.036	0.065	2.955%	2.62	5.051%	2.894%
	Jarque-Bera	4.346	0.761	1.818	1.230	2.209	0.773	0.490
	Probability	0.113	0.683	0.402	0.540	0.331	0.679	0.783
United Arab Emirate	Mean	0.921	0.848	0.447	3.253%	8.385	63.714%	4.558%
	Median	0.950	0.860	0.420	2.709%	9.000	69.646%	4.570%
	Std. Dev.	0.048	0.026	0.130	2.147%	1.660	12.636%	3.977%
	Jarque-Bera	4.869	2.296	1.588	0.793	1.428	1.547	2.118
	Probability	0.087	0.317	0.451	0.672	0.489	0.461	0.347

Note: FDI is proxied by net inflows of foreign direct investment as proportion of gross domestic product. CC represents corruption index, RQ represents regulatory quality measured by Investment profile, PV presents political stability and absence of violence measured by government stability, internal conflict, external conflict, ethnic tensions, G presents economic growth measured by annual percentage growth rate of GDP at market prices based on constant local currency, OP presents trade openness measured by the ratio of imports to GDP (% of GDP) and ST presents number of start-up procedures to register and start a business.

Table 2  
Correlation matrix between variables

Correlation	FDI	RQ	CC	PV	G	ST	OP
IFDI	1.000000 -----						
RQ	0.188753 0.0936	1.000000 -----					
CC	-0.352105 0.0014	-0.326802 0.0031	1.000000 -----				
PV	0.154797 0.1704	0.418406 0.0001	-0.171197 0.1289	1.000000 -----			
G	0.268600 0.0160	-0.116958 0.3015	-0.213159 0.0576	0.286562 0.0100	1.000000 -----		
ST	-0.244656 0.0287	0.082959 0.4644	-0.234443 0.0363	-0.268136 0.0162	-0.119782 0.2899	1.000000 -----	
OP	0.283696 0.0108	0.323690 0.0034	0.123414 0.2754	0.221283 0.0485	-0.188461 0.0941	-0.538608 0.0000	1.000000 -----

absence of violence and FDI is documented although it seems insignificant. Surprisingly, higher level of corruption fighting seems to discourage FDI. Moreover, higher levels of economic growth and openness increase FDI while more start-ups decrease the attractiveness of the host country to FDI. The correlation coefficients between the independent variables themselves are either low or insignificant which precludes the problem of multicollinearity.

Before proceeding to the co-integration test for the long-term relationships between country risk variables and FDI, we conduct

unit root tests as a priori condition to run the co-integration test. Table 3 presents the results of unit root test that conducted through Phillips-Perron (PP) test to determine the integration level of the tested variables.

As shown from table 3, we can reject the null hypothesis of unit root test at first difference for all the research variables. Therefore, we can conclude that all research variables are integrated at the first difference. This means there is long run relationship between FDI, country risk variables and control variables. The Johansen co-

Table 3  
Phillips-Perron panel unit root test results

Variable	Test	At level		At first difference	
		Statistic	Prob.	Statistic	Prob.
cc	PP - Fisher Chi-square	3.23153	0.9937	43.8219	0.0000
	PP - Choi Z-stat	2.93919	0.9984	-4.63372	0.0000
PV	PP - Fisher Chi-square	13.3313	0.3454	75.5749	0.0000
	PP - Choi Z-stat	-0.28999	0.3859	-6.55376	0.0000
RQ	PP - Fisher Chi-square	16.1777	0.1832	80.3401	0.0000
	PP - Choi Z-stat	-0.12657	0.4496	-6.79758	0.0000
FDI	PP - Fisher Chi-square	10.7501	0.5504	43.4288	0.0000
	PP - Choi Z-stat	-0.43021	0.3335	-4.50221	0.0000
G	PP - Fisher Chi-square	25.4086	0.0130	96.1931	0.0000
	PP - Choi Z-stat	-2.69685	0.0035	-8.25202	0.0000
ST	PP - Fisher Chi-square	4.27180	0.9343	44.0402	0.0000
	PP - Choi Z-stat	1.32817	0.9079	-4.59876	0.0000
OP	PP - Fisher Chi-square	12.8162	0.3825	43.8041	0.0000
	PP - Choi Z-stat	-0.30692	0.3795	-4.49338	0.0000

integration test is used to investigate the existence of long run relationship between FDI and country risk along with economic control variables in GCC countries.

Table 4 presents a test of the number of co-integration relationships between the tested variables. It can be clearly seen that

the null hypothesis of the existence of no co-integration equation is rejected in favour of the alternative of one or more co-integration equation. However, the results of Trace test and maximum Eigen-test shown in table 4 indicate that there is only one co-integration relationship between FDI and country risk

Table 4  
*Test of number of co-integration equations*

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	Max-Eigen Statistic
None *	0.693863	139.9621***	73.39083***
At most 1	0.417604	66.57124	33.51752
At most 2	0.221200	33.05372	15.50008
At most 3	0.144562	17.55364	9.680776
At most 4	0.088107	7.872865	5.718390
At most 5	0.034043	2.154474	2.147425
At most 6	0.000114	0.007049	0.007049

Note: \*\*\* indicates significance at 1% level, \*\* indicates significance at 5%

variables along with economic control variables.

This research uses the error correction model to detect the long run and short run effect of FDI and country risk variables along with economic control variables. The results of equations [1] and [2], of the long and short-term models are provided in Table 6.

Before proceeding to the error correction model, the lag order selection criteria has been applied to determine the optimal lag for the model. Table 5 presents the lag order selection criteria using Akaike information criterion (AIC), Schwarz information criterion (SC) & Hannan-Quinn information criterion (HQ) for the three models. The results from all lag order selection criteria show that only lag one is significant in all three models. Hence, the optimal lag that should be used in the research models is one.

Table 6 shows the results of error correction models for three country risk

proxies: corruption, regulatory quality and political stability and absence of violence.

The results from both the co-integration and error correction estimation in model 1 show that the regulatory quality index does not have significant impact on FDI whether on long or short run.

On the other hand, the results of co-integration estimation in model 2 illustrate that the long-run coefficient of FDI on corruption index is positive and statistically significant at 1% level. This indicates that a lower level of corruption increases FDI. This is consistent with Gastanaga et al. (1998), Busse and Hefeker (2007), Hayakawa et al. (2013), Sedik and Seody (2012), and Erkekoglu and Kilicarslan (2016). Moreover, the value of the error correction term, from the results of short-term estimation in model 2, of -0.494290 is less than one and significant at 1% level which proves the long-run relationship between FDI and country risk as measured

Table 5  
Lag order selection criteria

Lag	Model 1			Model 2			Model 3		
	AIC	SC	HQ	AIC	SC	HQ	AIC	SC	HQ
0	21.35336	21.53420	21.42347	21.50690	21.68773	21.57701	21.16686	21.34769	21.23696
1	15.95503*	17.04004*	16.37569*	15.66830*	16.75331*	16.08895*	14.91364*	15.99865*	15.33429*
2	16.52036	18.50954	17.29156	16.21853	18.20771	16.98973	15.49415	17.48334	16.26536
3	16.84204	19.73540	17.96379	16.30905	19.20241	17.43080	15.78299	18.67635	16.90474
4	17.23987	21.03741	18.71217	16.71743	20.51496	18.18972	15.95375	19.75128	17.42604

by corruption index. The negative sign of error correction term indicates that the equilibrium relationship comes back on long run to the stable state if the system is ever shocked.

Furthermore, the results of co-integration estimation in model 3 show that the long-run elasticity of political stability and absence of violence index to FDI is positive and statistically significant at 1% level which is consistent with Busse and Hefeker (2007) but is inconsistent with Sedik and Seody (2012) and Erkekoglu and Kilicarslan (2016).

As noted from the results of error correction models, there is no significant impact of economic growth on FDI in GCC countries. This result indicates that economic growth does not play any role in promoting FDI in GCC countries. Moreover, the models results confirm that start-up activities and country openness do not have any positive and significant effect on attracting FDI in GCC countries either on long run or on short run. These results contradict Demirhan and Masca (2008), and Erkekoglu and Kilicarslan (2016).

## CONCLUSIONS

This paper examines the long and short-term impact of three proxies of country risk in addition to control variables on FDI using co-integration and error correction models. It provides evidence supporting the positive impact of fighting corruption and improving political stability and absence of violence on the attractiveness of the host country to FDI. Surprisingly, regulatory quality index does

Table 6

*Johansen panel co-integration and vector error correction estimates*

		Model 1 CR measured by RQ	Model 2 CR measured by CC	Model 3 CR measured by PV
Co-integrating Equation Estimation	FDI(-1)	1	1	1
	RQ(-1)	-11.40405		
	CC(-1)		15.88451***	
	PV(-1)			57.57904***
	G(-1)	-1.042231***	-0.113909	-1.669213***
	ST(-1)	-0.221207	0.197822	-0.640413
	OP(-1)	0.003417	-0.054104	-0.254357**
	C	25.87697	-8.845593	-22.22340
Error Correction Estimation	CointEq1	-0.066219	-0.494290***	0.015876
	D(FDI(-1))	-0.085043	0.138787	-0.114644
	D(RQ(-1))	1.118617		
	D(CC(-1))		-1.232288	
	D(PV(-1))			5.120955
	D(G(-1))	0.029563	0.035822	0.067735
	D(ST(-1))	-0.221207	-0.246453	-0.181608
	D(OP(-1))	0.003417	-0.029516	-0.001755
	C	-0.065738	-0.04775	-0.033771
	R-squared	0.060005	0.233317	0.050001
	Adj. R-squared	-0.032453	0.157906	-0.043442
	F-statistic	0.648998	3.093927	0.535093

Note: \*\*\* indicates significance at 1% level,  
 \*\* indicates significance at 5%,  
 \* indicates significance at 10%

not affect FDI. This result may be explained by the high levels of regulatory quality and small variations in the variable in GCC countries. Furthermore, the findings of this research conclude that economic growth, startup activities and country openness do not have any effect on attracting the FDI in GCC countries. These findings could be due to the fact that most FDI in GCC countries

goes toward hydrocarbon sector. These results have important implications for policy makers in GCC countries who should work together to develop and formulate policies to attract FDI to non-oil sector.

The results of our study may help policy makers attracting more FDI to GCC countries through concentrating on fighting corruption and enhancing political

stability. That is, efforts should be directed toward combatting corruption and violence, which may help GCC economies to receive more FDI. The insignificant coefficient on regulatory quality index does not hint that GCC countries should worsen their regulatory quality to attract more FDI but it means that those countries enjoy high scores in regulatory quality and that a very little can be done in this direction.

A future avenue for research would be to look at the reverse direction of the relationship that goes from FDI to country risk variables. Moreover, the unexpected sign for regulatory quality index on FDI could pose questions for further study. Furthermore, this study was limited by the availability of data from ICRG for GCC countries. Future studies should use other proxies for country risk, such as those produced by Roubini Global Economics (RGE) and suggested by (Brown, Cavusgil, & Lord, 2015), and could apply a longer time period and control for more variables including other political factors, currency and exchange rate risks.

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## **Corporate Social Responsibility in Practice: The Case of Textile, Knitting and Garment Industries in Malaysia**

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### **ABSTRACT**

Malaysia is becoming an increasingly captivating market for international textile retailers. Implementation of Corporate Social Responsibility in textile and apparel industries in Malaysia is necessary because the industry has diversified itself to value-chain, from an original equipment manufacturer (OEM) producer to own brand and design supplier. There are not many studies found on approaches to implementation, drivers, and barriers for Corporate Social Responsibility in the textile sector. The objective of this paper is to examine and analyze approaches, initiatives, adoption, drivers and barriers to CSR implementation in textile and apparel industries in Malaysia. Through this study, the paper aims to understand the perspectives of the CSR practice in Malaysia and advance potential areas that could assist textile and apparel firm management to understand the hurdles preventing CSR implementation. The results of the study indicate that CSR practices among the textile, knitting and garment industry are mostly based on the stakeholders' model widely seen in the Western world. This study further reports the potential challenges of CSR practices in these industries.

*Keywords:* Barriers, Corporate Social Responsibility, drivers, Malaysia, textile

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### **INTRODUCTION**

With the current recognition for inculcating Corporate Social Responsibility (CSR) practices by the Malaysian textile and apparel fraternity, the focus has shifted from using CSR as a tool for profit for the organization's shareholders to utilizing it

as a lever for societal and organizational development. Handy (2013) reports that the Malaysian Knitting Manufacturers Association (MKMA) states that there are challenges in exercising the CSR practices in the textile and apparel industry, nevertheless it is inspired to take on the challenges and incorporate CSR into their businesses. The textile and apparel industry is determined to accord social responsibility initiatives by providing good environment for workers, fair treatment of employees and job applicants, enforcing ethical relationships with shareholders and suppliers, reducing human rights abuses, resolving social problems, supporting community development initiative, empowering women and other groups, reducing human rights and lastly supporting government policies.

In a nutshell, the concept of CSR is gaining popularity in the Malaysian industry. More and more company leaders are becoming involved of the CSR and it is believed that CSR will be a key factor to generate growth of business and sustainable survival of the industry at large (Handy, 2013). A look into the origin, development and current state of CSR practices in Malaysia would add a more precise context of the problem under study.

### **Corporate Social Responsibility in Malaysia**

Authors (Amran & Devi, 2007; Amran & Nejati, 2014; Nejati & Amran, 2009) have suggested that during the early stages of CSR in Malaysia, active communication

about CSR did not match awareness about it and also about the lack of clear conceptualization and narrow approach to CSR. It is believed that CSR practices were introduced to Malaysia through multinational organizations (Amran, Zain, Sulaiman, Sarker, & Ooi, 2013). Post-independence, Malaysia was dependent on foreign investment and joined the CSR fad. This was a major driver for adoption of CSR in Malaysia (Amran & Devi, 2008).

A 2012 report by UNICEF Malaysia on the Malaysian government's implementation of Vision 2020 outlines four CSR related strategic challenges of establishing a society that was: (i) a morally attuned and ethical (ii) benevolent with a culture of compassion (iii) economically fair and (iv) competitive and flourishing (UNICEF, 2012). CSR policies and practices in Malaysia have shown tremendous participation from various sectors which include the Malaysian government, Bursa Malaysia, and Companies Commission of Malaysia to create awareness and encourage companies to promote CSR in their business community and environment to uplift the status of CSR (UNICEF, 2012).

Malaysia is a multi-ethnic and multi-cultural, with most people being Malay, but there are also Chinese and Indians. Muslim is the majority in the country and their main form of giving is the Zakat during their festival celebration whereas the Chinese and Indians communities have their ethnicity-based contributions (Sharma, 2013).

In the Bahasa Malaysia language, the national language of Malaysia,

'philanthropy' interprets 'sukarela' which merges two words, 'suka' meaning favourable and affection and 'rela' meaning voluntary or extending. Whereas, 'gotong-royong', is practiced amongst the Malay culture since pre-colonial times. This concept of 'gotong-royong' is basically among the 'kampung' village folks, a village spirit working together for a good cause or gesture - very much related to communal work e.g. safeguarding the community within the housing areas during night time on a volunteering basis, preparing meals during festival, wedding ceremonies and other religious activities (Sharma, 2013).

The Malaysian government and other industry groups like the Bursa Malaysia (the country's stock exchange) are the driving force for the CSR agenda for encouraging the Malaysian Private Linked Companies (PLCs) to inculcate and integrate sustainability practices into the business strategies (Sharma, 2013), such as environment, community, employee and stakeholder protection. The term 'corporate social responsibility' and 'sustainable economic activity' are generally new in the last decade but of recent several organizations have CSR programs or activities have become mandatory. In September 2006, Bursa Malaysia launched an implementation and reporting framework for CSR activities by listed companies that stressed on voluntary disclosure. But it was reported that the practice of CSR had encountered a lot challenges in its approaches and drivers. A more vivid understanding of the barriers and

drivers will be helpful in designing more appropriate strategies for the better impacts of CSR.

### **Theoretical Approaches**

Academic literature (Kanji & Agarwal, 2016; Kumar, Murphy, & Balsari, 2001) positions four major approaches to CSR (i) the ethical model that champions voluntary public welfare' activities as a social commitment towards CSR, while fulfilling economic obligations (ii) the Statist model, where the government plays a major role in determining CSR responsibilities that have to be fulfilled using profits generated by the firms after tax deduction (iii) the liberal model 'where the onus is on private owners to fulfill CSR responsibilities through taxes from their firms, acting in accordance with the laws and (iv) the stakeholder model where stakeholder (employees, the social community, customers etc.) needs are paramount and the firms' time and resources are utilized for redressal of issues concerning them (trust, satisfaction etc.).

### **Textile Industries and CSR**

Academic literature abounds in conceptualizing the role of the textile and clothing industry in developing countries (Abreu, 2015) and its contribution towards economic progress through providing employment opportunities, and reduction of social exclusion (Zu, 2009). CSR and its relevance to the textile industry supply chain- from suppliers to end users have also been mapped (Gupta & Hodges, 2012).

Ndela (2015) and Abreu (2015) posited that textile companies could be CSR driven through identified socially responsible approaches in their day-to-day operations with maximization of safety in working environment, reduction of damage to the natural environment, proper waste handling methods, sustaining local communities and a good stakeholder relationship.

### **Textile Industry in Malaysia and CSR Practices**

Way back in the 1980s', Malaysia's apparel industry, stood as a contract manufacturer of high-end brands such as Giordano, Dockers, Nordstrom, Tori Richard, Polo, Tommy Hilfiger, Puma, DKNY, Victoria Secret, Macy's, Beverly Hills, Disney and many others (MATRADE, 2016). Based on its past experiences and automated manufacturing processes, the development of the textile and apparel industry diversified itself to value-chain, from an original equipment manufacturer (OEM) producer to own brand and design supplier as well as capitalizing on expertise gained during this transition (Crisis, 2012).

The multinational organizations comprise indigenously owned companies and foreign companies having a considerable presence abroad and controlled/owned by Malaysian citizens. Its objective is to maximize profits, coaxing on international business partnership. Small and medium-sized Enterprises play an essential role in the Malaysian economy development and have contributed substantially to the

growth of Malaysia. These sectors boost exports, enhance human capital and assist to capitalize on the digital economy (The Star, 2016).

A list of drivers and barriers to CSR in academic literature specific across Malaysian Industries include management commitment and employee involvement, competitive advantage, reputation and risk management, organization size, purchasing, and supply. The external drivers are government, customers, media organizations and technology in sustainable supply chain practices (Tay, Rahman, Aziz, & Sidek, 2015); encourage companies to promote CSR in their business community and environment (UNICEF, 2012); skill training and awareness programs (Tay et al., 2015). The barriers include resources cost, management committee, government policies, technology, customer awareness, media organization, and lack of training (Tay et al., 2015).

These barriers and drivers are to be taken into serious consideration to avoid shortfalls in the implementation level. CSR activities in Malaysia are widespread in almost all the industries. Textile industry forms one of the upcoming industries in Malaysia. A number of socio-economic and political factors gave a momentum for the rise of textile and apparel industry in Malaysia.

The literature on CSR practice in the field of textile and apparel industries are mainly from countries like India, China and from the West (Gunay & Gunay 2009; Książak, 2016; Nasreen & Rao, 2014;

Oldopp, 2015; SECO, 2009; Van Yperen, 2006; Zhu & Tan, 2008).

There are very few attempts to showcase the textile industries of Malaysia in connection with the CSR practices. Mugiati, Kumar, Muneer, Hishan and Ramakrishnan (2016) indicated the problems of CSR reporting in India and Malaysia in the context of the textile industry. Ramakrishnan, Hishan and Kanjanapathy (2016) also showed similar trends of reporting in CSR. Both of these studies found poor reporting of CSR activities by the Malaysian textile industries. There are very limited pieces of literature reported yet about the CSR practices and potential challenges of Malaysian textile industries. This remains a very relevant area of research as the significant role textile industry plays in the economy of Malaysia and business collaborations it could bring.

Considering the context of lack of empirical pieces of evidence, this study looks at analyzing the CSR initiatives among Malaysian textile firms, the tendency among these firms to follow the statist, liberal, ethical or stakeholder approach to CSR, and the motivators and hurdles to CSR implementation.

Many multinational companies are disclosing their CSR initiatives or practices either through websites, annual reports and special CSR edition. Malaysian companies have adopted Western-centric CSR practices and over the years CSR principles are adapted to suit the current scenario. This paper is to develop the knowledge based of CSR adoption through analyzing the CSR practices in Malaysian textile companies.

## METHODS

Bilingual questionnaires (English and Bahasa Malaysia) were sent out to top-level managers involved in CSR operations in textile and apparel companies, listed in the Malaysian External Trade Development Corporation, Apparel, Garment and Accessories Online Directory (MATRADE), 2016 and Malaysian Textile Manufacturers Association (MTMA Textile Directory, 2014) Textile Directory 2014/15. Data was collected in the months of September to October 2016. The samples were drawn from the Online MATRADE Directory, 2016 as well as from MTMA Textile Directory (2014). MATRADE, The National Trade Promotion Agency of Malaysia, the main role is to extend its services to Malaysian companies to furnish them with skills and knowledge and how to encounter the global arena.

In all 26 textile companies responded. Following the definition of SMEs' by the SME Corp. Malaysia (2013), the organization having five to 200 employees were taken as SMEs while those having above 200 employees were classified as multi-national enterprises MNEs (SME Corp. Malaysia, 2013). Eight MNEs and eighteen SMEs were part of the survey. The respondents were involved directly with the CSR activities of the company, (at the executive, manager, senior manager or director levels).

Questionnaire (adopted from Arevalo & Aravind, 2011) contained four components i) General approach to initiating CSR (ii) Approach to CSR adoption (iii) Motivation

(drivers) for pursuing CSR and iv) barriers/ obstacles for pursuing CSR. The scale items ranged from (1) “to a minimum extent” to (7) “to a great extent”.

Figures 1 to 4 reflect the respondents’ responses to the top choices regarding their approaches to CSR and the motivations and barriers. The horizontal axis details values ranging from (1) “to a minimum extent” to (7) “to a great extent”.

## RESULTS

A total of 26 textile, knitting and garment industries operating in Malaysia participated in the study. Among these 18 were industries falls under the SMEs and remaining 8 were MNCs. Table 1 lists out the companies which participated in this survey. The researchers were able to get a diversified data in the dimension of geographical location and area of its operation. The representing officials who had filled the questionnaire were the senior officials looking the CSR activities of the firm. Among the 26 managerial employees participated in the study, 14 were females and 12 were males. They represented different age group with the majority from 42-50 age group (30%).

The most popular approach to initiating CSR among textile firms was a stakeholder (Figure 1). Based on the top seven choices, three outlined corporate affinity to stakeholder interest, two were statist modelled, and one was liberal and one ethical. These findings correlated with their CSR adoption (as shown in Figure 2), with the stakeholder and statist approaches

being the most popular, followed by liberal and last, ethical. This is an indication that underlines the growing importance of stakeholders in adopting CSR activities.

The Friedmanian view of business was of it having only one social responsibility - to create a monetary value for itself by utilization of its resources (Carson, 1993).

Figure 3 pertains to data regarding Motivations or Drivers for implementation of CSR in Malaysian textile firms reveals that the top four reasons are related to business and profit enhancement such as increasing sales, satisfying employees, satisfying major customers and brand reputation. This finding is consistent with Baron, Harjoto, and Jo (2009) who found that a higher Corporate Social performance was associated with higher corporate financial health in consumer industries, with the opposite being true for industrial industries. Adhering to government regulation, gaining market access and leadership in CSR follow close behind. The Grant Thornton International Business Report (Raleigh, 2014) also mentions building a brand reputation among prospective stakeholders as being a key driver for CSR globally. The drivers of CSR activities indicate how industries are utilizing CSR as a strategy for business promotion and building reputation. The sustainability of the business undertaking can be potentially contributed by the CSR activities.

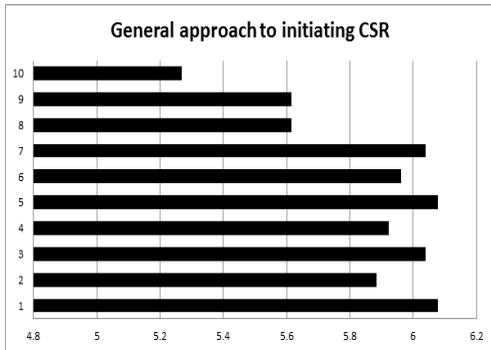
Figure 4 indicates that the most significant barriers were lack of resources - in terms of knowledge, information, finance, and training. Management support

Table 1  
List of respondents

Business type	Company	Nature of Business	Respondent	Head office
MNE				
1.	Bonia	Leather Goods	Director	Kuala Lumpur
2.	Classita (M) Sdn. Bhd.	Undergarment	Marketing Representative	Perak
3.	Evergreen Imex Sdn. Bhd.	Garment & Accessories	Senior Manager, Marketing	Kuala Lumpur
4.	Jerasia Capital Berhad	Knitted Apparel	Communications Manager	Johor
5.	Honsin Apparel Sdn. Bhd.	Garment	Marketing, Merchandising & Purchasing Assistant General Manager/Compliance	Johor
6.	Melium Sdn. Bhd.	Apparel	Chief Operating Officer	Kuala Lumpur
7.	Oceanic Fabric Mill Sdn. Bhd.	Clothing accessories	Human Resources Executive	Johor
8.	Pen Apparel Sdn. Bhd.	Apparel	Staff HCM Director	Penang
SME				
9.	American & Efird (Malaysia) Sdn. Bhd.	Accessories (Sewing thread)	Finance & Admin Manager	Johor
10.	Abharuddin Aziz Design	Apparel	Entrepreneur	Kuala Lumpur
11.	Basilic Concept Apparel	Apparel	Designer	Kuala Lumpur
12.	Coats Thread (Malaysia) Sdn. Bhd	Accessories (Sewing thread)	HR & Admin Manager	Melaka
13.	Carven Ong Couture	Apparel	Creative Director	Kuala Lumpur

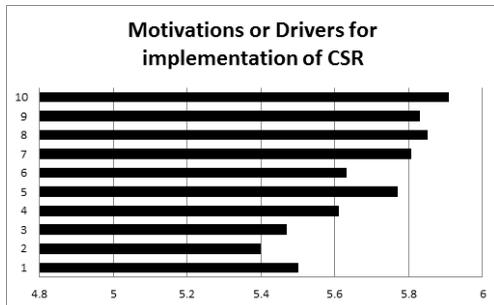
Table 1 (Continue)

Business type	Company	Nature of Business	Respondent	Head office
<b>SME</b>				
15.	House of Doll Fashion	Apparel	Fashion Designer	Kuala Lumpur
16.	Mellooi Creation Sdn. Bhd.	Fashion	Assistant Designer	Kuala Lumpur
17.	Nor Arfa Holdings Sdn. Bhd.	Textile	Marketing Officer	Terengganu
18.	Nyok Lan Garments Sdn. Bhd.	Undergarment	Human Resources Executive	Perak
19.	Radzuan Radziwill Sdn. Bhd.	Textile	Fashion Designer / Entrepreneur	Kuala Lumpur
20.	SHK Smart Sdn. Bhd.	Textile	Marketing Manager	Kuala Lumpur
21.	Sara J Global Sdn Bhd	Apparel	Fashion Designer	Selangor
22.	Tanoti Sdn. Bhd.	Hand-woven Textile	Director	Sarawak
23.	Tan Chong Apparels Manufacturer Sdn. Bhd.	Garment	Senior Associate, HR	Perak
24.	Workwear Design & Marketing Sdn. Bhd.	Garment	Marketing Manager	Selangor
25.	Xilouette Manufacturer Sdn. Bhd.	Undergarments	Senior Manager	Kuala Lumpur
26.	YKK (Malaysia) Sdn. Bhd.	Accessories – (Zipper)	Senior Sales & Marketing Manager	Johor



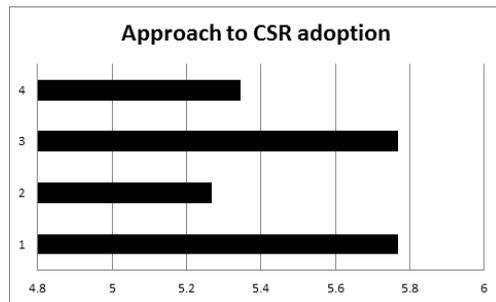
10. Solving social problems
9. Supporting community development
8. Increasing community's economic stability
7. Enforcing ethical relations with shareholders
6. Empowering women and other groups
5. Reduce human rights abuses
4. Support government policies
3. Enforcing ethical relations with suppliers
2. Not harming the environment
1. Fair treatments all employees and job applicants

Figure 1. General approach to initiating CSR



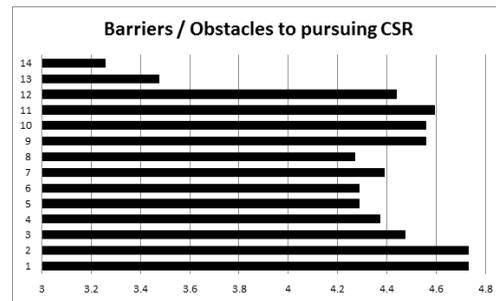
10. Customer satisfaction
9. Sales maximization
8. Employee satisfaction
7. Protecting Brand reputation
6. Market access
5. Fulfilling government requirements
4. Leadership in CSR
3. Top management belief in CSR
2. Correct thing to do
1. According to company's ethical orientation

Figure 3. Motivations or Drivers for implementation of CSR



4. Liberal approach
3. Statist approach
2. Ethical approach
1. Stakeholder approach

Figure 2. Approach to CSR adoption



14. Lack of support from top management
13. Lack of support from middle management
12. No significant benefits from implementation
11. Implementation too expensive
10. More important priorities for the company
9. Implementation too complex
8. Implementation too time consuming
7. Lack of knowledge about CSR implementation
6. Inadequate training from management for implementation
5. Lack of worker level skill/education for CSR implementation
4. Lack of knowledge about CSR practices
3. Difficulty in getting information on CSR implementation
2. Insufficient financial resources
1. Lack of training for CSR knowledge

Figure 4. Barriers or Obstacles to pursuing CSR

was found to be an insignificant barrier. Put together, these findings indicate that even though top management is not a deterrent to CSR, there is lack of allocation of finance for implementation, maybe due to lower belief of top management in CSR (as shown in Figure 3) and also due to the fact that most of Malaysia's CSR is still conducted at the philanthropy stage and has not actualized into a strategic implementation stage. (Abdullah, Mohandes, Hamid, & Singh, 2016).

The complexity of CSR and implementation difficulties were medium level barriers. These could also be the main reason for lack of financial support. As delineated by the Grant Thornton International Business Report (Raleigh, 2014), Malaysia figures in the third position of top ten countries that cite stakeholder demand for CSR implementation as a key driver. Findings of this study tentatively point towards a symbolic/theoretical adoption of CSR practices for a so-called halo effect (whereby its action of symbolic adoption earns it greater consideration from its stakeholders and the community), without practical implementation, to stave off the competition with better ethical credentials.

It is clear that strategic implementation of CSR activities is yet to be developed in the context of Malaysia and this is a core reason that most of the industries are still in the initial phases of its implementation. A proper budgeting and financing for the CSR activities have to be materialized to make wider impacts and prevent barriers.

Also, lack of knowledge of CSR potential directly leads to lack of investment in training for CSR awareness and knowledge.

## ANALYSIS OF FINDINGS

The study finds a strong link between reasons for the implementation of CSR and its approaches among Malaysian apparel firms. These firms adopt CSR primarily due to stakeholder and government pressure. The main drivers for CSR are thus business promotion and building reputation in the eyes of the stakeholders and government. As CSR adoption is only a form of lip service or points towards a halo effect, the lack of interest to sustained awareness and adoption fails due to lack of resources - knowledge, information, finance, and training.'

The study finds Management support to be an insignificant barrier. What can be the reasons then for lack of allocation of resources for CSR if the management was not averse to its adoption? The answer lies in its primarily stakeholder/statist approach to CSR. The Malaysian Socio-economic landscape is different from that of the West. Its strong Asian rootedness sets it apart from its Western counterparts, in terms of CSR as innate to its culture and values. Yet, in the face of global competition and in keeping with the tenets of Vision 2020 in becoming an export-focused economy, there has been a concerted effort by Malaysian apparel firms to reflect global (dominated by Western) trends in business strategies, which focus on Friedmanistic view or that of a social contract or an instrumental approach.

It is clear that strategic implementation of CSR activities is yet to be developed in the context of Malaysia and this is a core reason that most of the industries are still in the initial phases of its implementation. The complexity of CSR and implementation difficulties is a major challenge. A proper budgeting and financing for the CSR activities have to be materialized to make wider impacts and prevent barriers. Also, lack of knowledge of CSR potential directly leads to lack of investment in training for CSR awareness and knowledge. The need of the hour is to adopt a more realistic CSR focus, which would best suit a non-Western-centric approach, so as ensure that compatibility of CSR initiatives with its socio-economic setting.

## LIMITATIONS AND CONCLUSION

This study examined the state of CSR within the Malaysian textile, knitting and garment industry. Findings reveal that similar patterns of adoption of CSR as in Western countries where the stakeholder approach is dominant. However, the fact that CSR activities in Malaysia are seasonal (Zulkifli & Amran, 2006) coupled with its shorter history of adoption does not allow us to generalize this study's result. Also, this study has a small sample size and is limited to textile firms.

Lack of resources (information, training and financial) for CSR was found to be a major obstacle in this study. This finding could be related to a skew towards SMEs in the study sample. Size of enterprise has been identified in the academic literature

as a barrier for CSR implementation (Font, Garay, & Jones, 2014; Hung, 2011; Moyeen & Courvisanos, 2012), with SMEs facing major constraints in financial, training and knowledge capacities of CSR. Also, because the basic terminology for CSR is broad and vague, lack of understanding and shortage of information about CSR is challenging and slows down effective implementation (Ahmed & Rahim, 2005; Jenkins, 2004).

In terms of lack of financial resources for CSR implementation, though Raleigh (2014) in the Grant Thornton International Business Report reported that MNEs in Malaysia were actively involved in philanthropic activity, a 2016 study on CSR implementation challenges faced by SME food retail owners in Malaysia, reported that individuals do not donate generously towards CSR.

The study advances the current knowledge base of CSR in the context of textile and apparel industries in Malaysia. The understandings on the approaches adopted and motives of the CSR activities would be helpful in designing further CSR strategies for Malaysia. Some more sensitive CSR policies contextual to the socio-economic scenario can be initiated and recommended. The indication of the barriers will be helpful in designing better strategies for the implementation of CSR in the textile industry.

Different companies may have unique programs for CSR. In this paper, CSR practices in Malaysian textile and apparel companies are categorized or segmented to several aspects of CSR, including matters

on the community, consumer, employees, shareholders, environment and likewise (Yao, Wang, & Song, 2011). To sum up, based on findings, CSR practices in textile and apparel industries in Malaysia defer according to the targeted audiences related to shareholders responsibility, employee relations, community relations, product and consumer responsibility, environmental responsibility. Nevertheless, it is essential to implement CSR practices strategically and have a special task force or department to execute these implementations.

Majority of the Malaysian textile and apparel companies are not aware the CSR practices and its importance (Ramakrishnan et al., 2016). Most of the companies communicate through their website particular about their products/brand unfortunately very little attention or focus given to the disclosure and practices of CSR because they fail to realize the importance of communicating with its stakeholders (Ramakrishnan et al., 2016).

We can predict that Malaysia as the base for adopting a new approach for CSR in the textile and apparel industries with the Malaysian government encouraging and endorsing the role of CSR and contributing factor to the country's growth (UNICEF, 2012). It is need of the hour to have more practical and accountable policies and its implementation to ensure that it is contributing to the development.

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## **The Mediation of HIV/AIDS Knowledge in the Effect of Media Exposure on Attitude and Practice on the Syndrome: A Cross Sectional Study of Adolescent *Islamiyya* Girls in North-east Nigeria**

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### **ABSTRACT**

In the early 2000s adolescents' media exposure in sub-Saharan Africa was reported as very low, but today growth in infrastructure, media technology and program appeal make a case for a reassessment of the situation. Given that communication particularly through the media is considered a major preventive strategy to addressing the spread of the epidemic, this study investigates the media exposure, knowledge, attitude and practice (KAP) status of adolescent *Islamiyya* girls as potential mothers in Northeast Nigeria on HIV/AIDS as a predominantly Muslim society against the backdrop of earlier studies which showed that Muslim communities which were hitherto considered protected, were now witnessing a rapid evidence of an advancing HIV/AIDS epidemic. On the Hierarchy of Effects theory, hypotheses were posed to test relationships between HIV/AIDS media exposure and knowledge, favorable attitudes and safe practice among the girls; mediation effect of HIV/AIDS knowledge was verified. A survey was administered on a sample of 487 *Islamiyya*

girls in Bauchi. The study finds that while mass media exposure is not a significant predictor of HIV/AIDS safe practice and favorable attitude, it is a significant predictor of HIV/AIDS knowledge. While HIV/AIDS knowledge is a significant predictor of both HIV/AIDS favorable attitude and safe practice. There was a significant mediation effect of HIV/AIDS knowledge on the effect of HIV/AIDS media exposure on HIV/AIDS safe practice. It was thus concluded

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that media exposure is a necessary but not a sufficient precursor for HIV/AIDS safe practice.

*Keywords:* Adolescent girls, attitude, HIV/AIDS, knowledge, mass media, practice

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## INTRODUCTION

The fast spread of the AIDS pandemic has occasioned a vigorous debate about the role of media in fighting it. The reasons adduced, so far, are clear: medical science has been unable to render anything more than ways or methods of turning it from a deadly into a chronic condition, through anti-retroviral therapies. Resources have been deployed as public information related to HIV/AIDS in mass communication media programs. Underscoring the importance of media in disseminating HIV/AIDS preventive messages, the former United Nations Secretary General Kofi Anan said, "... broadcast media have tremendous reach and influence, particularly with young people, who represent the future and who are the key to any successful fight against HIV/AIDS" (as cited in UNAIDS, 2004, p. 4). The complexity of the challenge raised by AIDS has become much more visible and the epidemic is no longer seen as only a health issue. Its ramifications cover all aspects of society from economic and social structures to the psychological makeup of entire communities. The pandemic is recognized as a serious developmental issue for countries with the realization that HIV/AIDS and poverty feed off each other.

Combating HIV/AIDS is the number sixth item on the list of Millennium Development Goals which signals its

relative importance in the global scheme of things. AIDS poses a serious challenge with the potential to devastate whole regions and threaten decades of nation development. As far as posing real challenges to development is concerned, UNAIDS (2006) predicted several consequences of the pandemic before 2025, stating that due to lack of proper nutrition and healthcare in developing countries, a considerable number of people in those countries fell to AIDS. Loss of employment is not the only threat that faces patients, they also require considerable medical care. The increasing number of people dying in sub-Saharan Africa will lead to a smaller skilled population and labor force generally. Any increase in time taken off from work to look after sick family members or in sick leave also cuts productivity. By killing mainly young people, AIDS invariably seriously weakens the most productive portion of the population, thereby reducing revenue and resources available for public expenditure, such as on education and on health services. At the household level, AIDS results in increased expenditure on healthcare and loss of income. The effects of this situation on income leads to spending reduction as much as a substitution effect away from education and towards healthcare and spending on funeral services (UNIAIDS, 2006 in Ugande, 2007).

## Gender Dimension of HIV/AIDS Spread

The social forces driving the HIV/AIDS epidemic are more clearly understood through the gender dimension. Krueger

(2005) identified the key factors that made women or girls more vulnerable to infection as a result of the culture of silence surrounding sexuality, exploitative transactional and intergenerational sex, and violence against women within relationships. In most African cultures especially Muslim dominated areas, discussing sexuality is a taboo. Moreover, women's roles in sexual relationships are inconsequential; they are expected to submit to men at all times. They are considered passive participants in sexual interactions with no power to negotiate the practice of safe sex (use of condom and other protection) especially if they are spouses. Against this backdrop, Harrison (2005) and UNAIDS (2006) reported that because of cultural factors, as compared to men, the prevalence of HIV among women was higher in Africa. In addition, Hoosen and Collins (2004) submitted that women were more at risk in Africa possibly because of culturally and socially ascribed roles conferred on them, which placed them in a disadvantaged position with regard to decision making on safe sex; for example in negotiating the use of condom during sex. Because in such cultures, they are socially constructed as passive, submissive or subordinate. Other drivers of the HIV/AIDS epidemic among women according to Mulwo (2008) are the misconceptions which encouraged widespread rape; that for example young girls are immune to HIV, coupled with a long standing myth that having sex with them could possibly "cleanse a man's bad blood" i.e. HIV infection. The pandemic affects women

disproportionately, not just in the prevalence of infection, but also in the impact on those affected.

### **HIV/AIDS and Adolescence**

Extensive surveys have shown that adolescents are at greater risk of acquiring HIV than adults. For example, Bankole, Singh, Woog, and Wulf (2004) stated that behavioural, psychological and socio cultural factors made young people more vulnerable to HIV infection. In essence, invariably this submission suggests that cognitive, affective and behavioural factors among adolescents form the fulcrum driving the HIV/AIDS epidemic; consequently an understanding of these factors among young people could provide pathways to halting the spread of the HIV/AIDS epidemic. Adolescence is a time when young people naturally explore and take risks in many aspects of their lives, including sexual relationships. Those who have sexual experiences may change partners frequently or desire to have many partners at the same time or carelessly engage in unprotected sex. Young people's chance or risk of contracting HIV is heightened by this behavior. Bolan, Ehrhardt, and Wesserhait (1999) stated that young women were physiologically more vulnerable to infection than older women because changes in the reproductive tract during puberty made the vagina and cervix of adolescents less resistant to infection. All the above submissions, ranging from social, cultural, psychological to physiological factors make young girls a special subject for study in the campaign to reverse the trend

of practicing unsafe sex, with consequences like HIV/AIDS, especially in West Africa.

While many models of investigating community health issues abound, the cognitive, affective and behavioral approach (KAP model) seemed more attractive to researchers because of its ability to reveal plausible pathways to addressing health concerns especially by identifying misconceptions about diseases and affective barriers or obstacles to prevention or protection. Buttressing this point, Bhattacharyya (1997), and Stone and Campbell (1984) (cited in Launiala, 2009) stated that the hallmark of the KAP model lay in its characteristically apt presentation of results, generalizability of findings from a small sample to the wider population, ease of design, administration and results interpretation. Even though it is very dangerous to assume linear progression from knowledge to favorable attitude and ultimately to safe practice, the KAP model presumes that decisions on behavior change have cognitive and psychological dimensions. Because this study is centered on the relationship of mass communication and the audience's cognitive, affective and behavioural approach towards HIV/AIDS, it was anchored on the Hierarchy of Effects (HoE) model. Hanan (2009) discussed the Advertising Research Foundation's HoE model as having relevance and application in HIV/AIDS prevention communication, and by extension, research. The model views individual behavior change in a linear sequence which commences with exposure to information (through communication

media) and assumes that knowledge, favorable attitudes and ultimately action in the form of trial and adoption of the desired behavior or practice will follow.

### **HIV/AIDS Situation in Sub-Saharan Africa**

According to the recent figures of prevalence of HIV/AIDS in sub-Saharan Africa, 24.7 million people lived with the disease in 2013 with 4.7 million adult prevalence, 1.5 million new infections and 1.1 million AIDS related deaths. Nigeria's figures out of these totals stood at 3.2 million people living with the disease, 220 000 new infections and 210 000 AIDS related deaths. Further, South Africa, Uganda and Nigeria are reported to account for almost half of the new infections in 2013 in sub-Saharan Africa (Global Information and Advice on HIV & AIDS, 2014). In the late 90s, HIV/Syphilis Sentinel Survey by Nigeria's Federal Ministry of Health (1999) revealed that youth between the ages of 19 and 24 years who represented the productive and economically viable segment of Nigeria were most affected. Estimates from the survey indicated that 2.6 million Nigerians between 15 and 19 years (within which most *Islamiyya* girls fall) were already affected and that this figure was projected to rise to 4.9 million by 2003. According to National Action Committee on AIDS (NACA), (2004), in Nigeria, the epidemic had different faces across the states. Some states in the federation recorded prevalence rates of well over the national average of 4.7% while there was no state with a prevalence rate below 1%.

Northern Nigeria being a Muslim dominated society; and the *Islamiyya* school system, because of religious considerations, happens to be more robust in capturing adolescents than secular schools, especially the girls, whose enrollment into formal schools is still a challenge in the region. Though more comprehensive in terms of capturing adolescents, to date no study has used the *Islamiyya* school system as a site for investigating vital social, media-related, or health-related issues like HIV/AIDS. In the light of the above, this study set out to determine the adolescent *Islamiyya* girls' media exposure and their knowledge, attitude and behavior/practice (KAP) towards HIV/AIDS.

### **Media Exposure and KAP on HIV/AIDS**

In the early 2000s, Bankole et al. (2004), assessing adolescents' media exposure and HIV/AIDS situation in West Africa reported that in most countries fewer than one in ten women and men aged 15-19 listened to radio, watched TV and or read a newspaper at least once a week. More horrendously, in many countries in the region report Bankole et al. (2004), large proportions had no weekly exposure to any mass media. The picture of adolescent exposure to mass media presented here is unacceptable given that mass media messages on HIV/AIDS are recognized as a most potent vaccination against the epidemic. Young persons must learn to protect themselves, and in different societies, mass media are the major sources for information on self-protection. Today,

given improvements and development in infrastructure and increased literacy and program appeal in addition to the popularity of Hausa home video in Northern Nigeria (Larkin, 2004), there appears a case for the reassessment of adolescents' media exposure particularly as it affects their HIV/AIDS KAP.

A number of studies in the past investigated relationships among HIV/AIDS KAP variables (Tung et al., 2008; Bekalu & Eggrmon, 2013; Letamo, 2011; Li et al., 2009; Moore, 2008) and found relationships among these variables. These studies suggested that there seemed to be correlations among the HIV/AIDS KAP variables and that respondents' major sources of information were the mass media. A particular trend in the studies like, Bouanchaud (2011), Li et al. (2009), and Xiao, Li, Lin, and Tam (2015) which investigated relationships between media exposure and KAP was they showed relationships of media exposure with HIV/AIDS knowledge and that HIV/AIDS knowledge had relationship with the other KAP variables. These relationships indirectly suggest the mediation of HIV/AIDS knowledge in the path between HIV/AIDS media exposure and HIV/AIDS practice and HIV/AIDS attitude. The present study principally set out to detect such a mediation effect in a structural model. Isolating different roles for the different constructs of HIV/AIDS KAP and media exposure in a structural model could give further clarification to the subject and forge a new approach to addressing it.

The study of media use and HIV/AIDS knowledge in northwestern Ethiopia by Bekalu and Eggrmon (2013) delivered mixed results. Exploring the knowledge gap resulting from mass media use disparities in the studied population, precisely checking the relationship between mass media exposure relating to HIV/AIDS and HIV/AIDS knowledge, the study found that mass media exposure was not a significant predictor of HIV/AIDS knowledge. At the same time however, the study showed that the knowledge gap between respondents with high education and those with low education was inversely proportionate to the increase in HIV/AIDS media use. Invariably meaning, the knowledge gap between the two groups closes with the increase in HIV/AIDS media consumption.

In a different study earlier by Li, et al. (2009) in China however, results indicated that HIV/AIDS related mass media exposure directly linked with HIV/AIDS favorable attitude and safe behavior especially on the stigmatizing attitude towards people living with HIV/AIDS. The study states that “although there have been theoretical debates on how and why mass media communications influence behavior, there is considerable empirical evidence showing that mass media can be used for attitude and behavioral change associated with HIV/AIDS” (p. 1). In addition, a study by Thanavanh, Harun-Or-Rashid, Kasuya and Sakamoto (2013) in Lao asserted that students with medium and high level knowledge were more likely to exhibit

favorable attitudes to PLWH and were more likely to practice safe sex. Moore (2008) also found a relationship between HIV/AIDS knowledge and favorable attitude and practice in a study in the United States of America. Following from the postulations in the studies above therefore, especially with the caveat that HIV/AIDS knowledge and favorable attitudes may not only be a result of media exposure, in this study, the impact path from media exposure to HIV/AIDS safe practice and between media exposure and HIV/AIDS favorable attitude were hypothesized to be mediated by HIV/AIDS knowledge. This study attempts to clarify further in a distinct model, such relationships among *Islamiyya* girls in Northeast Nigeria, by hypothesizing that:

- H1 *Islamiyya* girls’ media exposure has significant positive effect on their HIV/AIDS safe practice.
- H2 The girls’ media exposure has significant positive effect on their HIV/AIDS knowledge.
- H3 Media exposure among them has significant positive effect on their HIV/AIDS favorable attitude.
- H4 HIV/AIDS knowledge among them will mediate in the effects of HIV/AIDS media exposure on HIV/AIDS safe practice
- H5 HIV/AIDS knowledge among them will mediate in the effects of HIV/AIDS media exposure on HIV/AIDS favorable attitude

## METHOD

Adolescent *Islamiyya* girls in this study are aged 11 to 19 years attending non-formal or non-secular Islamic night schools in Northern Nigeria. This study investigated their *media exposure on HIV/AIDS* (the aggregate of a respondent's responses to a 14-item questionnaire on the extent of their attending to radio, TV, newspaper, home video or Hausa novel on messages on HIV/AIDS). The study investigated their *HIV knowledge level* (the respondent's knowledge of prevention, risk behavior, HIV basic facts, HIV testing, transmission and epidemiology, measured in a 29 item 5-point scale from *False* to *True*). This study also investigated the girls' *attitude* towards the disease (mental state of readiness in a respondent which helps prevent the transmission of HIV/AIDS and STDs among inhabitants of a community including tolerance for people with AIDS) (Lal, Vasan, Sarma, & Thankappan, 2000). In this study, it is represented by the aggregate of a respondent's responses to a 5-point scale 12 items on HIV/AIDS and people living with it. Their *HIV/AIDS safe practice* (referred to the behavior that reduces the respondents' risk or chance of contracting HIV/AIDS-including intention to practice), which is measured in this study by the aggregate of a respondent's responses to a 5-point scale response to 17 items on HIV/AIDS safe practice.

## Sample

The survey was administered on a sample size of 500 adolescent *Islamiyya* girls drawn

through multi-stage probability sampling across 10 selected *Islamiyya* schools under *Riyala* (*Islamiyya* coordinating body in Bauchi, Northeast Nigeria). The sample size was subjected to post hoc Power Analysis which yielded an estimated Power (Power (1- $\beta$  err prob.) = 0.997 at .05 alpha level. Classroom situation questionnaire administration was adopted, and 487 girls turned up (about 97% response rate).

## The Survey Instrument

Adapted from Hirose, Nakaune, Ishizuka, Tsuchida, and Takanashi (1998), this study assessed media exposure on HIV/AIDS in a 14-item questions scale. Some of the items are: "How often do you obtain information on HIV/AIDS from radio?" "How often do you obtain information on HIV/AIDS from TV?". "How often do you obtain information on HIV/AIDS from women magazines?". After reviewing many articles to decipher the effects of general media exposure on behavior, Annenberg Media Exposure Research Group (2008) reported that studies revealed mixed results; some found substantial evidence for the effect of general media exposure, some found moderate effect while others found no effect. The report pointed out that studies have become more methodologically sophisticated recently; instead of investigating the effects of general media exposure or exposure to particular media genre, researchers have now begun to use specific exposure measures, for example 'exposure to sexual content'. The model tested in this study therefore considered the specific exposure of "media exposure on HIV/AIDS".

The scale of HIV/AIDS knowledge was adapted from the cross-national WHO instrument on Health Behavior in School Children (HBSC) which sought information on knowledge on HIV/AIDS causes, symptoms, modes of transmission, prevention and epidemiology. The construct was measured in this study with 29-items in such statements as: "A person will not get HIV/AIDS if the person is taking antibiotics". "Once infected with HIV a person can infect others for his/her entire life". "A new vaccine has recently been developed to prevent AIDS". "A person can be infected with HIV by having unprotected intercourse with someone who has HIV" (Thomson, Currie, Todd, & Elton, 1999). The response scale of these was a 5-point Completely False - Completely True scale adapted from Rhodes and Wolitslci (1989) (as cited in Aiken, 2002). Also adapted from WHO HBSC instrument, are the items on HIV/AIDS favorable attitude (Thomson et al., 1999). The scale included such statements as: "I need to know more about AIDS". "I usually specifically look for some media programs to gain more information and knowledge about HIV/AIDS". "Children with HIV should be allowed to go to school with non-infected children". "I don't feel sorry for people who caught AIDS because it is their own fault".

A questionnaire seeking to investigate respondents' safe behavior or practice on HIV/AIDS and intention to practice consisting of 17-item statements was developed for this study for cultural sensitivity and religious considerations.

Examples of such items: "From time to time, I conduct HIV screening test to be sure of myself." "Before marriage, I will not be shy to insist on the person marrying me to test for HIV screening". "Once a suitor approaches me with improper relationship, I cut my relationship with him even if I love him very much". "I use my day time for hawking to earn money for my parent". Five medical doctors from Northern Nigeria familiar with the custom, tradition and religion of the region filled an *arbiter analysis* form (experts scoring the relevance of each questionnaire item in terms of face and content validity for inclusion to measure a given construct). On each of the items (variables: 1, essential, 2, useful but not essential, 3, not necessary), Lawshe's Content Validity Ratio (CVR) was calculated and all items have a CVR above zero. Lawshe's CVR values ranged from -1 (perfect disagreement among arbiters) and +1 (perfect agreement among arbiters) In essence if an item's CVR is above zero it means more than 50% of the experts agreed that the item was essential. All 17 items were retained. Bouanchaud (2011) points out, "... we are assuming the scales of knowledge, attitude, behaviors and media exposure are all continuous, latent trait modeling is the most appropriate method to develop KAB/P and media indices" (p. 17). As considered by Bouanchaud's (2011) study, each of the media exposure and HIV/AIDS KAB/P variables was applied as latent variables, that is, each of them not measurable directly, however revealed partially through the battery of individual responses to survey questions.

Presentation and analysis of data were done using statistical descriptive tools to summarily describe the respondents' average media exposure and KAP on HIV/AIDS, and Structural Equation Modeling (SEM) to determine the effect of media exposure on other KAP variables and how HIV/AIDS knowledge among the respondents can play the role of go-between on how media exposure affects HIV/AIDS practice, keeping in line with the assessment indicators as envisaged in the objective of the study. After deleting 11 outliers, data satisfied the condition of Normality of distribution for carrying out analysis with SEM. Analysis proceeded with 476 cases. In the assessment of the measurement model to screen out items with inadequate loading to perform the SEM analysis, and to determine the reliability of the media exposure and KAP variables, sixteen items survived for a fit model, with loadings of more than .40 (Hair, Hult, Ringle & Sarstedt, 2014) (HIV/AIDS media exposure, 7 items, HIV/AIDS knowledge, 3, HIV/AIDS favorable attitude,3, HIV/AIDS safe practice,3).

Best indicators were therefore retained. In structural equation modeling, the use of a few best indicators was found to be always better according to Hayduk and Littvay (2012). The items retained in this survey's measurement model had loadings between 0.619 and 0.870 which is acceptable.

### Reliability of Constructs

Table 1 shows the factor loadings of each item retained, the composite reliability and average variance extracted of each construct. Using composite reliability coefficient for estimating reliability, the interpretation was based on the rule of thumb suggested by Bagozzi and Yi (1988) and Hair et al. (2011) that coefficient of composite reliability should not be below the benchmark 0.70. Latent construct composite reliability coefficient for each latent construct as depicted in Table 1 ranged between 0.765 to 0.884; all above the minimum required level of 0.70, indicating acceptable or adequate internal consistency reliability of measures in the study.

Table 1  
*Results of reliability test*

Code	Loading	AVE	Composite Reliability
HIV Attitude		0.530	0.771
HIVAtt10	0.682		
HIVAtt5	0.692		
HIVAtt6	0.805		
HIV Knowledge		0.523	0.765
HIVKn1	0.758		
HIVKn21	0.619		
HIVKn28	0.781		

Table 1 (continue)

Code	Loading	AVE	Composite Reliability
HIV Safe Practices		0.570	0.796
HIVPrc11	0.618		
HIVPrc15	0.870		
HIVPrc4	0.757		
Media Exposure		0.522	0.884
HIVBillBoards	0.748		
HIVEngNpp	0.727		
HIVHausaNpp	0.664		
HIVHealthMag	0.773		
HIVInfoRadio	0.718		
HIVInfoTV	0.682		
HIVNewsMag	0.741		

## RESULTS AND DISCUSSION

### Respondents' Overall KAP and Media Exposure on HIV/AIDS

The main purpose of this section is to provide a descriptive analysis for the reflective latent constructs of this study, which involves the computation of the Mean and Standard Deviation for the latent constructs. Table 2 below shows the results of the descriptive statistics. For easier interpretation, the scales were classified into three categories: Low scores, moderate scores and high scores. As Sassenberg, Matschke, and Scholl (2011) recommended, scores of less than 2 (3/3 + Lowest values) were considered low score; and scores of 3 (highest value 5-3/3) were considered high and those in between low and high were considered moderate.

As shown in Table 2, the overall range of the latent constructs' Means are between 2.115 and 3.508. Specifically, the Mean and

Standard Deviation of HIV/AIDS favorable attitude are 3.508 and .981 in this respect. In turn, this suggested that the respondents tended to have moderate and close to high levels of HIV/AIDS favorable attitude. At the same time, the table also depicts that the Mean for HIV/AIDS knowledge was 3.047, with a Standard Deviation 1.041, also further suggesting that respondents had moderate HIV/AIDS knowledge. In addition the table depicts a moderate

Table 2  
Descriptive statistics of latent constructs (N=476)

Construct	Mean(SD)
HIV Attitude	3.5 (±0.98)
HIV Knowledge	3.05 (±1.04)
HIV Safe Practices	2.82 (±1.14)
HIV Media Exposure	2.12 (±0.89)

score for HIV/AIDS safe practice (Mean = 2.818, Standard Deviation = 1.138). These descriptive statistics for latent constructs also showed a moderate score for HIV/AIDS media exposure (Mean = 2.115, Standard Deviation = .893). This finding showed a remarkable departure from the findings of Bankole, et al. (2004), which reported that in most countries in West Africa fewer than one in ten boys and girls aged 15-19 listened to radio, watch TV and or read a newspaper at least once a week

**Assessment of the PLS-SEM Path Model**

What follows is the assessment of the structural model tested in this study. Standard bootstrapping procedure of 5000 bootstrap samples with 476 cases was applied to determine the significance of path coefficients (Hair et al., 2014; Hair, Sarstedt, Ringle & Mena, 2012). Figure 1 and Table 3 depict the structural model estimate with mediation analysis for HIV/AIDS knowledge in the structural model.

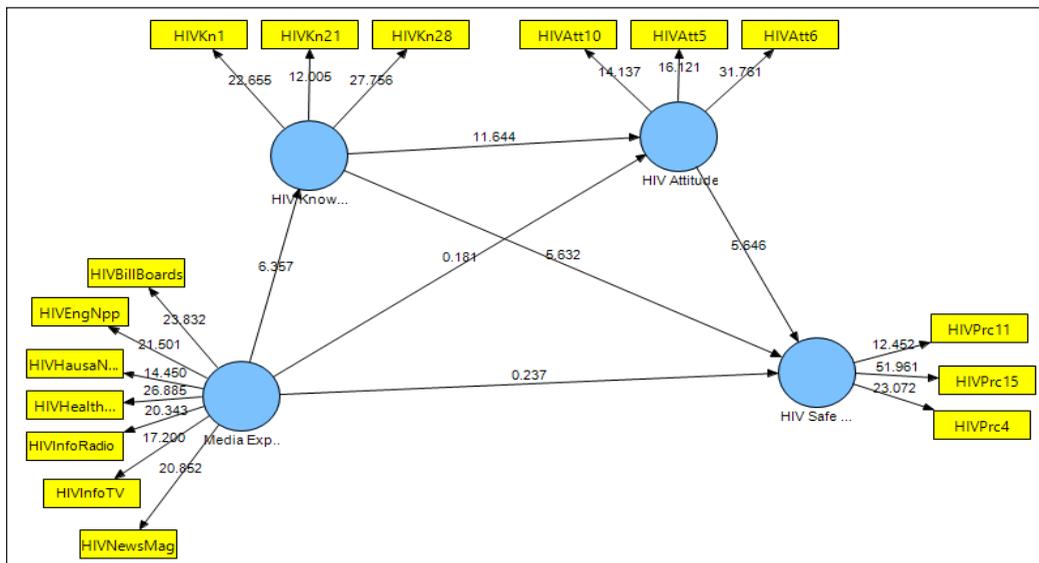


Figure 1. The Structural model with mediator variables

**H1: Islamiyya Girls’ Media Exposure has Significant Positive Effect on Their HIV/AIDS Safe Practice**

This study attempted to empirically verify the interrelationships among the constructs of media exposure to HIV/AIDS information, HIV/AIDS knowledge, HIV/AIDS attitude and HIV/AIDS safe practice or behavior.

Hypothesis 1 predicted HIV/AIDS media exposure would have significant positive effect on HIV/AIDS safe practice. Results in Table 3 depict a 0.05 level of significance, H1 was rejected, implying there is no direct significant positive relationship between HIV/AIDS media exposure and HIV/AIDS safe practice ( $\beta = 0.010, t = 0.237, p > 0.05$ ).

This result is not consistent with the results of Bouanchaud, (2011) which revealed that mass media exposure was a significant predictor of HIV/AIDS safe practice. Again, it is also not in consonance with the results of a related study conducted by Sznitman et al. (2011) on African American adolescents, which showed that mass media exposure had a remarkable effect on their STIs (sexually transmitted infections) risk behavior. Apparent as they may seem, these differences in findings may only amount to contradistinction with the present study but not contradiction. This is largely probably because of cultural and religious disparities. The scales for measuring HIV/AIDS safe practice differ. For example, Bouanchaud's (2011) scale was a binary variable of "ever used condom?", while the scale on condom use was deliberately completely ignored in this study because of religious sensitivity. This scenario could be explained away in that perhaps mass media could be a significant predictor of the HIV/AIDS practice of condom use because of media emphasis on condom use, which is likely to trigger desired response in sexually free societies, while not a predictor in other HIV/AIDS related practice than condom use.

### **H2: The Girls' Media Exposure has Significant Positive Effect on Their HIV/AIDS Knowledge**

The second hypothesis H2 predicted HIV/AIDS media exposure would have significant positive effect on HIV/AIDS knowledge. Results as shown in Table 3 and

Figure 1, HIV/AIDS media exposure had a significant positive effect on HIV/AIDS knowledge ( $\beta = 0.234$ ,  $t = 6.357$ ,  $p < 0.01$ ) which means that at 0.01 alpha level, H2 was supported.

Although empirical evidence using the Knowledge-gap hypothesis in HIV/AIDS studies has over the years revealed mixed results, Etemma et al. (1983) cited in Bekalu and Eggremont (2013) remarked that the application of the hypothesis had become much clearer in health communication campaigns. Over the years, this hypothesis, according to the author, has become a powerful tool for conceptualizing media effect research by researchers seeking definitive evidence on audience knowledge disparities accounted for by differentials in media use concerning health communication. In consonance with these assertions, as is the case in this survey, while HIV/AIDS media exposure was not found to have significant effect on HIV/AIDS safe practice, the results showed that HIV/AIDS media exposure was a significant predictor of HIV/AIDS knowledge.

Results for H2 found significant positive effect of media exposure on HIV/AIDS knowledge, which is consistent with the findings of Xiao et al. (2015) which detected that exposure to HIV/AIDS-related mass media information had significant relationship with HIV/AIDS knowledge and HIV/AIDS attitude. Apart from Xiao et al. (2015), Li et al. (2009) were also consistent on this point. Contrarily, Bekalu and Eggremont (2013) found that without

controlling for any other variable in their study, media exposure was not a significant predictor of HIV/AIDS knowledge. Their finding is perhaps the only one in the literature under this subject, and it is accompanied with implication on research.

### **H3: Media Exposure among the Girls Has Significant Positive Effect on Their HIV/AIDS Favorable Attitude**

Hypothesis 3 which predicted direct positive effect of HIV/AIDS media exposure on HIV/AIDS favorable attitude, as shown in Figure 1 and Table 3, was rejected at 0.05 level of significance ( $\beta = -0.008$   $t = 0.181$   $p > 0.05$ ).

The study did not find support for the hypothesis and was therefore inconsistent with Xiao et al. (2015). Studies like Letamo (2011) in Botswana found that the knowledge that something could be done to prevent HIV/AIDS infection, consistently significantly predicted safe sex behavior among young people. In spite of increased use of mass media for HIV/AIDS prevention, little was known on the resultant psychological effect among the public due to differentials in media consumption. For example, in a systematic review of articles published on this subject between 1983 and 2004, Escover-Chavez et al. (2005) found that only few studies, precisely 12 out of 2,522 (< 1%), actually examined the effects of mass media on adolescent sexual attitudes and behavior. The authors further submitted that none of these studies could serve as a basis for policy.

### **H4: HIV/AIDS Knowledge Will Mediate in the Effects of HIV/AIDS Media Exposure on HIV/AIDS Safe Practice**

Studies by Tung et al. (2008), Li et al. (2009), Rahnama (2009), Letamo (2011), Sznitman (2011), Meundi, Amma, Rao, Shetty, and Shetty (2008), Xiao et al. (2015), Bouanchaud (2011), Bekalu and Eggremont (2013), and other related studies which examined relationships between components of KAP or the HoE theory, attempted to trace direct relationships between isolated constructs of the HoE theory (the Advertizing Research Foundation's version). Now, beyond the direct relationships discussed above, the present study, moved further to hypothesize theorized possible indirect relationships (mediating effects) between HIV/AIDS media exposure and HIV/AIDS safe practice and HIV/AIDS favorable attitude as an extension of theory. Hence, the possible mediating role of HIV/AIDS knowledge in the path between HIV/AIDS media exposure, HIV/AIDS practice and HIV/AIDS favorable attitude were traced and assessed. Hypotheses for both paths were supported.

In H4, HIV/AIDS knowledge was hypothesized to mediate the relationship between HIV/AIDS media exposure and HIV/AIDS safe practice. Results in Table 3 and Figure 1 show that HIV/AIDS knowledge significantly mediated between HIV/AIDS media exposure and HIV/AIDS safe practice ( $\beta = 0.063$ ,  $t = 4.048$ ,  $p < 0.01$ ), indicating that H4 was supported at 0.01 level of significance. The result of this hypothesis further suggested that HIV/

AIDS media exposure could only have significant effect on HIV/AIDS safe practice by the mediation of HIV/AIDS knowledge affirming full mediation because the direct path between HIV/AIDS media exposure and HIV/AIDS practice was not supported as shown in Table 3.

**H5: HIV/AIDS Knowledge will Mediate the Effects of HIV/AIDS Media Exposure on HIV/AIDS**

Similar to H4, the mediation of HIV/AIDS knowledge between HIV/AIDS media exposure and HIV/AIDS attitude as predicted by H5 which was also supported at .01 level of significance ( $\beta = 0.104$ ,  $t = 5.233$ ,  $p < 0.01$ ).

Therefore, while H1 detected no direct positive significant effect of HIV/AIDS mass media exposure on HIV/AIDS safe practice, H4 detected an indirect positive significant effect of HIV/AIDS mass media exposure on HIV/AIDS safe practice by the mediation of HIV/AIDS knowledge. In the same fashion, while HIV/AIDS media exposure is not a direct significant positive predictor of HIV/AIDS favorable attitude as hypothesized in H3, it is an indirect significant predictor of HIV/AIDS favorable attitude by the mediation of HIV/AIDS knowledge as hypothesized in H5, which was supported.

Table 3  
*Results of hypothesis testing*

Hypotheses	Hypotheses Path	Path Coefficient	Standard Error	T Value	P Value	Decision
H1	Media Exposure -> HIV Safe Practices	0.010	0.043	0.237	0.406	Not Supported
H2	Media Exposure -> HIV Knowledge	.234	0.037	6.357	.000	Supported
H3	Media Exposure -> HIV Attitude	-0.008	0.046	.181	0.428	Not Supported
H4	Media Exposure -> HIV Knowledge -> HIV Safe Practices	0.063	0.016	4.048	.000	Supported
H5	Media Exposure -> HIV Knowledge -> HIV Attitude	0.104	0.020	5.233	.000	Supported

**Implication**

All the above supported mediation of relevant constructs find support in the postulations of media ‘Limited Effects’ theories, which revised the earlier notions of the media ‘Powerful Effects’ theories,

that assumed mass media had direct powerful effects on their audiences with no considerations of any limitations of those effects by any intermediary agent. So while the HoE theory is classified under the linear effect models (linear transmission models)

(Hanan, 2009), the theoretical implication of this study suggested evidence for explaining the HoE model under the media limited effects models, in that mass media exposure was not found to have direct effect on behavior. This finding could be interpreted as mass media exposure reinforcing HIV/AIDS knowledge to influence HIV/AIDS safe behavior and HIV/AIDS favorable attitude. This scenario is articulated by Klapper's (1960) terse assertion that mass media "campaigns do not influence people; their major effect is the reinforcement of existing attitude" (in Scheufele, 1999).

## CONCLUSION

Based on the results of this study, it could be concluded that media exposure is a necessary but insufficient precursor for HIV/AIDS safe behavior and attitude. Media exposure actually reinforces other components of HIV/AIDS knowledge and perhaps, interpersonal discussions on HIV/AIDS through media agenda setting to affect HIV/AIDS favorable attitude and safe practice. It could also be concluded that there are established relationships among knowledge, attitude and practice relating to HIV/AIDS, and these variables relate positively with media exposure and HIV/AIDS knowledge, directly and others indirectly.

In Nigeria, mass media, for example the Hausa Home Video and *Nollywood* provide a potential window for addressing adolescents on HIV/AIDS. A significant improvement has been noticed in this study on adolescent media exposure generally

in the Nigerian part of West Africa as compared to what obtained in the region in the early 2000s as reported by Bankole et al. (2004). This situation could be attributable perhaps to improvements in communication infrastructure and increased literacy.

In spite of the well-acknowledged potential of mass media in HIV prevention, little is known in terms of the knowledge gap on HIV/AIDS that exists in societies because of disparities in media exposure and the concomitant effect of HIV/AIDS media use on attitude and behavior regarding HIV/AIDS. It is also concluded that fusing HIV/AIDS-related information in mass media can narrow the gap in HIV/AIDS knowledge in a given social milieu and address the challenges of negative HIV/AIDS attitudes and risky practice.

Given the above conclusions and theoretical implications, the need arises for more empirically based evidence to shape Nigeria's HIV/AIDS behavior change communication policy which was for a very long time based on the Fisher and Fisher's (1991) Information, Motivation and Behavioral Skills (IMB) model. The last time policy was revised on behavior change communication was in 2004, and even then, the IMB (linear) model (National HIV/AIDS Behavior Change Communication 5 year strategy 2004 – 2008) guided the policy. The substantive findings and conclusions of this study posed a trigger of implications on manipulating media in a desirable way to reinforce HIV/AIDS knowledge by closing knowledge gap disparities on HIV/AIDS among adolescents to achieve HIV/AIDS

favorable attitudes and safe behavior. As is concluded here, mass media do not have direct effect on attitude and behavior, they do have tremendous effect on knowledge, and knowledge according to the findings has effects on both attitude and behavior. It is recommended therefore, that media HIV/AIDS program planners and producers shift emphasis from designing programs directly targeting behavior change. The substance of the findings in the present study support designing programs aimed at directly influencing HIV/AIDS knowledge among adolescents, thereby indirectly targeting attitude and behavior change. For example, the media can emphasize on issue specific knowledge on HIV risky practices, and the knowledge that the practice is risky could perhaps motivate behavior change.

### **Limitation**

This study is limited by its cross sectional nature; limited financial resources constrained the researcher from embarking on a longitudinal design on the subject. This will purposely be to uncover results that are more definitive and compare results across long periods to decipher more influences factoring on the HIV/AIDS knowledge attitude and practice associated with prolonged exposure to mass media HIV/AIDS messages. This study has nonetheless functioned as a pointer to future direction of research and given a glimpse of evidence on the relationships of HIV/AIDS related cognitive, psychological and behavioral constructs operating at the background on avoidance or approaching

HIV/AIDS risk. Further in terms of ruling clear causal relationship, this study is limited by its design, and as with many other research designs except experimentation, the independent variable (media exposure) cannot be manipulated to directly rule causal relationships. Again, due to financial constraints and the *Boko Haram* insecurity predicaments pervading many of the Northeast Nigerian states (Hamid & Baba, 2014), the study could not draw samples from the whole of Northeast Nigeria, but it strongly upholds that, due to cultural and religious homogeneity, the results can be generalized to the wider northeastern Nigeria being predominantly Hausa/Fulani Muslim.

In spite of the limitations, this study managed to contribute to the clarification of distinct roles of the constructs of the ARF's Hierarchy of Effects Model. The study has also contributed by providing a revelation to the point of comprehensive coverage of the girl-child in northern Nigeria in social science studies generally. Apparently all social science studies in northern Nigeria were conducted on girls attending formal schools, thereby neglecting a substantial portion, those who do not attend formal secular schools, like those who attend *Islamiyya* schools. Due to its pervasive nature, the *Islamiyya* system captures more comprehensively the girl-child in the region whose enrollment in formal secular schools is still a challenge. Because mass media exposure does not have a direct effect on HIV/AIDS safe practice, as witnessed in this study, it is possible some other HIV/AIDS

interpersonal communication channels are more effectual. It is recommended here that future researches in this regard explore such possibilities, using the same structural model or a different but similar one. There is also the need to further explore the possibilities of bidirectional relationships between HIV/AIDS media exposure and the hypothesized mediator variables tested in this study. Finally, there is the need for conducting similar studies in Christian dominated communities of Nigeria to see if results tally. It is also worthwhile to undertake a longitudinal design on the same subject in future for more adequate results.

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## **Xenophobic Violence in South Africa and the Nigerians' Victimization: An Empirical Analysis**

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### **ABSTRACT**

The issue of xenophobia has become a common phenomenon in South Africa, where significant numbers of innocent lives have been lost, properties worth millions of dollars destroyed, and many people displaced. The victims of these attacks were majorly black Africans. Surprisingly, the molestation and attacks originated from Africans and targeted at fellow Africans particularly the blacks. The ugly trend which has been linked to the parochial mindset among South Africans with the belief that the foreign nationals in their land are the cause of unemployment, poverty rate and spreading of deadly diseases in the country. Given this fact, it has become a notion within the country that foreigners have hijacked the socio-economic sector of South Africa and the solution was to frustrate the migrants out of the society. However, the attacks on Africans and Nigerians in particular is a barbaric and disturbing scenario which definitely has implications on the external relations of both countries (Nigeria and South Africa). Thus, it is cogent to explore the xenophobic violence in South Africa with special focus on Nigerians. The paper infers that Africans need to embrace tolerance and treat foreign nationals in their countries, irrespective of race or gender, with high sense of brotherliness to promote cooperation among the African States as well as enhance peace and development of the continent.

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## INTRODUCTION

“I can understand how this might brew animosity and resentment but let us remind South Africa that the most prosperous Nations of the world are the ones who open their arms, doors and hearts to talents from all over the world.”

Olushola Adeyeye<sup>1</sup>

South Africa is one of the most advanced countries in Africa with great infrastructure. The country attracts visitors from different nations and climes who visit for vacation, business, tourism and other activities. With a robust economy and a favourable political and social climate, South Africa has also become a choice destination for most African asylum seekers (Akinola 2018a; Gordon, 2017; Oloruntoba, 2018). South Africa's diverse culture and identity as well as relatively high standards of living is another pull factor for immigrant from different countries.

Despite its viable economic, political and social climate, negative attitudes by some of the citizens of South Africa towards foreign residents in the country have influenced some African countries, particularly those whose nationals have suffered the mayhem, to review their relationship with South Africa (Akinola,

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<sup>1</sup> Olusola Adeyeye is a Nigerian, a Professor of Biology and at same time the Chief Whip of the 8<sup>th</sup> National Assembly. He was elected as Senator for the Osun Central constituency of Osun State, Nigeria in April 2011 elections.

2018a, 2018c; Tella, 2016). The ill treatment meted on other nationals by some South Africans is to evict the foreigners from their land whom they claimed to have taken away their businesses, land, wives, among others (Adjai & Lazaridis, 2014; Fagbadebo & Ruffin, 2018; Wilson & Magam, 2018). These actions have resulted in series of killings, massacre, burning and destruction of properties owned mostly by African nationals residing in the country.

Similarly, the history of xenophobia in Africa has become a general phenomenon. This is because a number of countries in Africa have witnessed the xenophobia in their various countries (Akinola, 2018a, 2018c; Oloruntoba, 2018, Oni & Okunade, 2018; Tella, 2018). However, the rate at which South Africa experiences the xenophobic violence in Africa is more frequent and alarming compared to other countries where the incidence had occurred in the past (Gordon, 2017; Ruedin, 2018). This frequent recurrence of xenophobia in South Africa needs to be addressed among the African states. This is because whenever there is xenophobic attack in South Africa, the foreigners who are mainly Africans resident in the country are the prime target (Fagbadebo & Ruffin, 2018). Thus, this calls to question the ability to guarantee security and safety of Africans in the African continent. Therefore, there is need for countries like Nigeria among others whose nationals have been victimized in one form or the other by some aggrieved South Africans to take measure on how to prevent its future occurrence.

In the same vein, the study is aimed at bringing to the awareness of the public on the likely consequences of the negative acts of the South African citizens on other foreign nationals living in the country. This is also to sensitize the South Africa citizens, particularly those who are involved in the ill-treatment of foreign nationals residing in the country on the likely danger they are exposing South African nationals who are living in other countries. Therefore, this study is aimed at highlighting the need for Africans to imbibe the spirit of brotherhood among fellow Africans irrespective of their colour or race in order to encourage cooperation and promote stability in Africa continent.

### STATEMENT OF PROBLEM

Xenophobia is a common phenomenon in Africa that has been experienced in countries like Angola, Botswana, Ghana, Nigeria, Zambia, Zimbabwe among others (Akinola, 2018b; Benyera, 2018; Carciotto, 2016; Oni & Okunade, 2018; Shulika & Sabi, 2018; Tella, 2016, 2018). However, the recurring event of xenophobia in South Africa has become a burning issue in Africa. This has been canvassed for by several literature found on the xenophobic violence in South Africa.

Hence, Nigeria like many other African countries has cordial relationship with South Africa government which has made it easy for the duo to work things out together in the African continent such as the contribution to Africa's peace, stability and development (Colliers, Schunemann, & Moyer, 2015;

Obi, 2015). On the other hand, the rate at which the incessant xenophobic violence through assaults and attacks on Nigerians living in South Africa calls for a serious concern. Although, the xenophobic violence in South Africa recorded massive attacks on foreigners who are predominantly Africans, but this study is focused on the frustration and victimization experienced by Nigerians in the country.

Even though past studies such as Obi (2015), Fayomi, Chidozie, and Ayo (2015), Ogunnubi (2016), and Ogunnubi and Amusan (2018), had been conducted on the Nigeria-South Africa hegemonic influence in the African continent. There are scanty studies on the effects of the ill-treatment meted out on Nigeria's nationals in South Africa on the economic relations and diplomatic ties of the two countries. The victimization of Nigerian nationals by South Africans can destabilize the long-term relationship between the two countries. It is against this backdrop that the study examines how xenophobia in South Africa is affecting the Nigeria-South Africa relations, in order to prevent any disengagement between the two countries.

### METHODS

The study employs a systematic review of literature majorly on xenophobia in Africa with emphasis on South Africa. The study is equally qualitative in nature which is based on the use of secondary data sources. This study used literature on different xenophobic violence recorded on books, journal articles, Newspapers and experiences of Nigerian

returnees from South Africa who were victim of xenophobic attacks on foreigners in the country.

Moreover, the study makes use of frustration-aggression theory as a good theory is hypothetical set of norms where facts will be derived from the body of knowledge (Asika, 1991). Hence, the theory of frustration-aggression best fits the explanation of the xenophobic violence on foreigners living in South Africa, particularly the influence of such ill-treatment on Nigeria's nationals. The frustration-aggression theory can also be referred to as the frustration-aggression-displacement theory. The theory was formulated by Dollard, Doob, Miller, Mowrer and Sears in 1939, before it was later developed by Miller et al. and Berkowitz in 1941 and 1969 respectively (Berkowitz, 1989). The theory stipulated that, "...aggression is always a consequence of frustration and, contrariwise .....the existence of frustration always leads to some form of aggression" (Dollard et al., 1939). Similarly, aggression has been described as "the result of blocking, or frustrating, a person's efforts to attain a goal" (Friedman & Schustack, 1999).

According to Zillmann (1979), the responses to frustration could involve "supplementary factors such as personal attacks or the instrumental value of aggressive reactions" (Zillmann, 1979). He stressed further that "the blockage of a goal reaction, in and of itself.....generally will not induce interpersonal hostility or aggression" (Zillmann, 1979). However,

Baron (1977), on his own suggested that, "frustration is not a very common or important (antecedent of aggression) and is probably far less crucial in this respect than has widely and persistently been assumed" (Baron, 1977). He argued further that "barriers to goal attainment would produce aggressive reaction only when they were unexpected" (Dill & Anderson, 1995). Hence, the aggression theory emphasizes that, frustration always leads to aggression, but if the frustration act is not well curbed, the resultant effect of it will be disastrous which can lead to inflicting unnecessary pains and attacks on the innocent target (Pastore, 1950).

The relevance of the theory to this study is that the xenophobic attack on foreign nationals is capable of disorganizing the existing cordial relationship between countries in Africa. For instance, Nigeria's foreign policy ensures the protection of rights and properties of its citizens both within the country and outside, any infringement on rights or properties of its citizens by any country without a reasonable cause can affect Nigeria's relation with the country. As Nigerians are in other countries carrying out different forms of activities, other countries' nationals are also in Nigeria for a purpose. It becomes the responsibility of the host country to ensure the safety of lives and properties of both its citizens and foreigners residing legitimately in their country.

## LITERATURE REVIEW

The term Xenophobia is two Greek words “xenos” and “phobos” meaning “strange” and “phobia” respectively (Chinomona & Maziriri, 2015). The Xenophobia as a concept can be defined as actions, attitudes, behaviours and perceptions that discriminate individuals on the assumption of not being an indigene, outsiders or people from other community different entirely from theirs. According to Akindès (2004), xenophobia is the hatred of foreigners that is characterized with all sorts of abuses, violations and discrimination of the highest order. The literature has shown that several factors are responsible for the cause of xenophobia. These include; the anxiety of loss of identity and social status, fear of success on the part of the economy, superiority feeling among the indigenous, fear of boundaries in a national crisis and misinformation from the culture (Danso & McDonald, 2001). According to Crush and Ramachandran perceived xenophobia as “highly negative perceptions and practices that discriminate against non-citizen groups based on their foreign origin or nationality” (Dassah, 2015). Xenophobia originally emanates from the beliefs and perceptions of a group of people categorizing the non-natives as being inferior to them in terms of socio-economic and political affiliation of the land where they are residing (Akindès, 2009).

The issue of xenophobia can be attributed to a higher rate of the number of unemployment, poverty and above all when the government of a country is not showing concern for the protection of individual

rights and freedom (Masenya, 2017). The terms xenophobia and racism share similar attributes in the literature, but the latter is a branch to the former. Racism is a form of discrimination focused on biological or skin pigmentation, while xenophobia comprises all forms of segregation or discrimination against those categorized as non-nationals (Akinola, 2018a). A typical example of this was demonstrated by South Africans when, “locals seem to accommodate citizens from Ghana and Senegal, while displaying acute hostility to those from Nigeria, Zimbabwe and Somalia” (Akinola, 2018a).

According to Kaluba (2016), the relationship between the racism and xenophobia is that:

In countries where people of different races live, xenophobia and racism often overlap although they are distinct phenomena since unlike xenophobia racism usually entails a distinction based on physical characteristic differences such as skin colour, hair type, facial features, while xenophobia implies behaviour based on the idea that the other is foreign to or originates from outside the community or nation (Kaluba 2016).

Hence, xenophobia covers all forms of hostility and intolerance meted on those categorized as non-nationals or foreigners. This could manifest through several forms such as racephobia (racism), ethnophobia (ethnic conflict), genophobia

(genocide), afrophobia (hatred among Africa's nationality), foreignphobia (hatred for foreign things) (Akinola, 2018a). The term xenophobia can be described as "a social psychological, attitudinal, either overt or indirect, hostility and tension towards foreigners manifesting as physical violence, social conflict or a mere latent dislike or foreigners" (Fungarai, 2015). The act of nursing or keeping grudges for foreigners without any course is known as xenophobia. This can be equally regarded to as the illogical worry or foreigners' hatred (Harris, 2002; Williams, 2008).

Similarly, according to Benyera (2018), "the forms of xenophobia range from the use of derogatory language to physical violence such as necklacing, setting foreigners alight, assault and arson". In the same vein, Gomo (2010) equally viewed xenophobia as a way by which:

Foreigners are often perceived in a negative, derogatory and dehumanizing manner that categorizes them as inferior people, enabling them to be subjected to unfair treatment..... characterizd by extreme nationalism, expansive economic protectionism, identity formation, blatant intolerance and hostility towards the others and violent acts against non-locals (Gomo, 2010).

This means that any act meted on other nationals or foreigners either in form of attack or assault, foul or abusive language, and other forms of hatred attach to foreign nationals living in a particular country is to be described as xenophobia.

Therefore, the theory of frustration-aggression adopted by this study is relevant to explain the Nigeria-South Africa relations in many ways, particularly in relation to xenophobic attacks on Nigeria's nationals in the country. One of such is that the theory is useful to describe the likely repercussion of the South Africa's xenophobia on the country's relations with Nigeria. Nigeria - South Africa relations have been cordial due to some similarities in two countries' foreign policies (Ogunnubi & Isike, 2015; Webber & Smith, 2014). This has made the duo to have been in good term with each other and have a common vision for the African continent (Colliers, Schunemann & Moyer, 2015; Obi, 2015).

Similarly, South Africans' attitudes towards the foreign nationals residing in South Africa, particularly Nigerians, may lead to frustration to Nigerians after they might have returned to their native land. Harms can be done on South Africa's investments in Nigeria as a way of retaliating the attacks meted on them while in South Africa. This is similar to assertions made by Whitley and Kite (2010) that the humiliation and disrespect at work that one failed to respond to, due to the fear of losing one's job, such frustration and anger may be transferred to one's family at home. Such transfer of aggression can occur among Nigerians over South African investments in the country such as MTN, DSTV, Nandos, Shoprite, Pep among others in retaliation to what the country's nationals have experienced under the aggrieved South

African indigenes during xenophobia, if adequate measure is not taken (Unah, 2017).

Furthermore, as part of the assumptions of the frustration-aggression theory, the aggression of the frustration experienced by the African nationals residing in South Africa can cause disharmony and lack of cooperation among the African countries. Countries whose nationals were molested or frustrated in South Africa may adjust its foreign policy relations toward South Africa (Piazza, 2017; Wang, 2014). Hence, this may breed disunity among States in Africa.

Therefore, literature has revealed that the xenophobic acts in Africa has become a general phenomenon in which most of the States in Africa have experienced one in form of or the other (Akinola, 2018a, 2018b; Benyera, 2018; Shulika & Sabi, 2018; Tella, 2018). Despite the experience of xenophobia in Africa, none of the incidence has recorded the assault or violence meted on foreign nationals the way the South Africa's xenophobic attacks did (Tella, 2016, 2018). Although, the traces of xenophobia in the African continent is linked to the impacts of Europeans domination in the Africa's affairs during the imperialist rule (Brobbe, 2018; Oni & Okunade, 2018). Hence, this has made the xenophobia history in Africa to be traced to their experiences or heritage from the colonial rule.

### **History of Xenophobia in Africa**

The colonial experience and the discrimination which African countries have witnessed canvass for the negative attitudes

of some Africans against their fellow Africans. According to Osoro (1993) and Maathai (2009), the colonization of Africa by the Europe has led to the disappearance of Africa's identity. Although, there may be some traces of conflicts among Africa during the precolonial era as a result of competing for scarce resources among African people (Ki-Zerbo, 2005). These scarce resources may arise as a result of land disputes, power and water. Invariably, the colonization or imperialism has worsened the situation through the introduction of the colonial administration which led to the destruction of the existence of the traditional rule in Africa (Mamdani, 1996).

According to Mamdani (2012), the colonial system of administration incapacitates a well-structured traditional system of administration met in Africa to introduce the imperialist rule. Colonialism introduced new identities for African ethnic and tribes in order to make Africans play against one another for the colonialist's objectives to be achieved. This has manifested in a series of misunderstandings, conflict and in time war over issues such as boundaries, power struggle among groups. This has led to wars in such instances like the Rwanda genocide, Ivory Coast civil war, Nigeria civil war, and war in Liberia, Sierra Leone and many other countries in Africa (Oloruntoba, 2018).

Furthermore, xenophobia in African continent has been described as the postcolonial heritage to the continent. Countries like Ghana, Nigeria, Botswana,

Zimbabwe, Namibia, Guinea, Gabon, Angola, South Africa among others have experienced one form of xenophobia or the other (Oloruntoba, 2018). Like Ghana in 1969, under the administration of Kofi Busia deported 20,000 to 500,000 Nigerians in less than three months under the pretence of Aliens Compliance Order (Gocking, 2005; Owusu, 2012). Similarly, in 1983 and 1985, Nigeria equally deported Ghana citizens residing in the country through Alien and Immigrants laws, same in Angola, Uganda, Gabon, Chad, Kenya, Cote d'Ivoire, South Africa among others (Neocosmos, 2010; Romola, 2015). The xenophobic actions in countries like Ghana, Angola, Nigeria, Uganda and South Africa were attributed to the economic issue. The reaction of xenophobia in Kenya and Chad were caused by war on terror. Also, the xenophobic prejudices in Cote d'Ivoire, Equatorial Guinea and Gabon were attached to politics and economic considerations. The deportation of Angolans by the Congo Kinshasa was attributed to political issue of the country then (Aremu & Ajayi, 2014; Oni & Okunade, 2018; Romola, 2015).

Therefore, the idea behind the deportation or expulsion of foreign nationals among African countries is to create opportunities for the indigenes in their native land (Hart, 2016). This has formed part of the arguments in those countries where xenophobia has taken place, having forgotten that, other nationals who residing in their country are contributing either directly or indirectly to the economic development of the country where they

are living (Hickel, 2014; Zwane 2014). Nevertheless, the country whose nationals is being rejected or expelled for no reason than xenophobia, may not likely be in a good term with each other.

Hence, the act of xenophobia is totally condemned in African continent, particularly the hatred of Africans by Africans (Brobbe, 2018; Ogunnubi & Amusan, 2018; Tafira, 2018). Specifically, the frequency at which the xenophobia in South Africa is taking place, calls for a serious concern among African States. It is important to stress that, the xenophobia in Ghana, Nigeria, and some other countries like that did not record violence (Hart, 2016; Oni & Okunade, 2018). Meaning that, none of the xenophobia occurrences in Africa has exhibited violence, the way the South Africa's xenophobic attacks was launched on foreign nationals living in the country. Therefore, xenophobic acts by South Africans on other nationals can be better examined in history of xenophobia in the country.

### **Genesis of Xenophobia in South Africa**

South Africa has been faced with rapid influx of both legal and illegal foreign immigrants entering and living in the country. It has been on record that, more than 2.2 million immigrants were residing in South Africa from the 53 African States (Molatlhwa, 2012). In 2011, the South African statistical records showed that Zimbabwe had the largest immigrants in South Africa, followed by Mozambique among other foreign nationals (Molatlhwa, 2012).

Similarly, South Africa is one of the countries in Africa where foreigners or immigrants love to visit and perhaps stay due to its industrialized setup and conducive atmosphere (Dyson, 2015). The country is one of the most industrialized countries, if not the first of its kind in Africa. In fact, the buoyant nature of the South African economic has attracted people from all walks of life to migrate into the country (Adeogun & Faluyi, 2018).

Since the nineteenth century when gold was discovered in Witwatersrand in South Africa, the country has started employing foreign nationals (Adam & Moodley, 2013; Adeogun & Faluyi, 2018). This has made the country to have experienced an influx of foreign immigrants from different parts of the world and mostly from African countries. The black immigrants were employed to the mining industries even during the apartheid era in South Africa. Since then, the native of South Africa, particularly, the black South Africans mostly referred to the foreign immigrants as a threat in their land (Fayomi et al., 2015). Hence, the industrialized nature and comfortable environment in South Africa, attract the influx of migrants to the country.

These particular attributes made foreigners from all walks of life to troop in for the purpose of seeking refuge from economic crises, poverty, unfavorable government policies and wars in their various native lands (Solomon & Kosaka, 2013). In fact, the refugees and asylum seekers prefer to reside in South Africa. According to the report of the United

Nations High Commissioner for Refugees (UNHCR ROSA, 2015), over 310,000 refugees and asylum seekers are in South Africa in July, 2014. Meaning that in 2015 upward, the number of refugees will have increased beyond, while 60,000 to 80,000 asylum seekers come into the country yearly. This made the population rate of South Africa to be increased daily. Noticing this increase in the population of South Africa, the South Africans assumed most foreigners or immigrants in their country particularly the black Africans illegally entered the country. This perception as noted by Gumede (2015) was the primary cause that triggers other factors in the xenophobic or Afrophobic or negrophobic attacks in South Africa.

The incidence of discrimination in South Africa could be traced back to its apartheid experience which had inculcated some element of racism in South Africans (Kalitanyi & Visser, 2010). Evidence had shown that illicit discrimination meted on foreigners or immigrants in South Africa had not just started but dated back to 1994. The South Africans reportedly threw some foreigners out from moving trains, simply because they believe that foreigners were those taking their jobs and bringing diseases to South Africa (Misago, 2015). Nonetheless, the 1994 transition from apartheid rule into a democratic system of government in South Africa betrayed all expectations as the xenophobic attacks increased.

The South Africa's Xenophobia was described by Nyamnjoh (2006), as an effect

of globalization. He stressed further that, “globalization exacerbated insecurities occasioned by borderless flow of capital, goods and information in a large scale. This brought about an obsession with citizenship and belonging and the re-actualization of boundaries through xenophobia” (Nyamnjoh, 2006). Similarly, Sichone (2008) equally corroborated Nyamnjoh’s view that, the South Africa’s xenophobia is:

One among several possible forms of reaction generated by anomic situations in the societies of modern states. The new South Africa is a good candidate for a society in a condition of anomie ... and we should therefore not be surprised to find unusual levels of moral confusion among the citizenry (Sichone, 2008).

The perception of the South Africans toward xenophobia was that, the immigrants who entered the country legally were depriving them of employment (job and services), while the illegal immigrants in South Africa constituted to the level of corruption among the security agents (Crush & McDonald, 2001). It is because of this that South Africans developed hatred, hostility and intolerance toward foreigners residing in South Africa. Hence, the actions of South Africans toward immigrants can be linked to what Crush and McDonald viewed as “their experiences of apartheid which culminated in their suffering, discrimination, and denial and any attempt by foreigners to compete with them on benefits accruable to local

nationals after apartheid would be resisted” (Crush & McDonald, 2001).

The anti-immigration attack on foreign nationals living in South Africa started on May 2008 in Alexandra township of Johannesburg (Tafira, 2018). The attacks which was launched on the foreigners claimed the lives of about 64 immigrants, while thousands were displaced, many sustained severe injuries (Tafira, 2018). The incident was related to 1835 and 1846 wars where it was declared that:

Let war be made against the kaffir huts and gardens. Let all these be burnt down and destroyed. Let there be no ploughing, sowing or reaping. Or, if you cannot conveniently, or without bloodshed prevent the cultivation of the ground, take care to destroy the enemy’s crops before they are ripe, and shoot all who resist. Shoot their cattle too wherever you see any. Tell them the time has come for the white man to show his mastery over them (as cited in Magubane 1986).

The South Africans were so much passionate about their campaign tagged “Buyelekhaya” meaning “go back home” calling immigrants with series of odd names. In that same 2008 xenophobic violence in South Africa, attacks were carried out on foreigners living in all parts of South Africa where 670 immigrants were wounded, dozens were raped, properties worth millions of Rands were either looted or destroyed and

more than 100,000 displaced (Consortium for Refugees and Migrants in South Africa [CORMSA], 2009; Nyar, 2009; Tafira, 2018). Furthermore, the xenophobic attacks did not end there, similar attacks were lunched between 2009 and late 2010 where almost 20 foreigners were hacked to death, above 40 were critically injured, over 200 shops owned by foreigners were looted and over 4000 immigrants were displaced for their safety (CORMSA, 2011).

While trying to calm the situation during the 2008 South Africa xenophobia, one of the parliamentarians of the country, Motsoko Pheko described the actions of the natives of South Africa as a barbaric when he described the term xenophobia:

What is called "xenophobia" in South Africa is brother hating or disliking brother. This signals that the colonial mentality is too deep-seated in this country, if this is not the work of hooligans or a "third force" to derail the Pan-African agenda, which fathers of the liberation struggle in Africa such as Kwame Nkrumah, Sekou Touré, Julius Nyerere, Robert Sobukwe, Patrice Lumumba, Marcus Garvey, W.E.B. Du Bois, George Padmore, Malcolm X and many more embraced (cited in New African Magazine 2015).

Immediately after the attack incidents of 2010, the South African government under the leadership of the former President Thabo

Mbeki was reported to have addressed the nation on the need to desist from assaulting or killing of foreigners particularly the Blacks who are Africans. He was quoted that:

When I walk down the streets of Johannesburg and this other black person approaches me, there is no way [of] my telling that they are Zimbabwean or Mozambican. There is nothing there that says, 'ah, this is the enemy I must hate'. But if a white person comes up, they are different. So I am saying that if there was xenophobia, I would expect it to be expressed against people who might stand out as being different from me and also, given our history, these are the people that oppressed us. But you don't have any evidence of racism among our people (Ncana, 2010).

The declaration made by Thabo Mbeki to condemn xenophobia in South Africa was a bit relief to the African continent with the hope that peace has returned to the country. However, in the year 2011 another series of attack on foreigners were carried out where over 120 people were killed and some burnt alive, 100 were seriously wounded, 120 businesses / shops owned by foreigners were closed and not less than 1000 immigrants were displaced (UNHCR ROSA, 2014). Similarly, in the years 2012, 2013 and 2014, there were weekly frequent attacks on foreign nationals. In fact, between

January 2014 to March same year, estimated 300 incidents of violence meted on foreign nationals were recorded, over 200 shops owned by foreigners were either looted or destroyed and 900 persons were displaced (UNCHR ROSA, 2014).

Similarly, in 2015, another attack was launched by the South African native on foreign nationals living in the country (Gordon, 2017). The violence started in April 2015 in EThekweni and Johannesburg cities. Many casualties were recorded on both human and properties (Egan, 2015; Gordon, 2017). The xenophobic attacks were launched on foreigners after Zulu King Goodwill Zwelithini was quoted to have said that “foreigners should go back to their countries” (Masenya, 2017). The pronouncement aggravated the attacks on immigrants and their properties. In fact, some relevant government departments and the South African Police Service (SAPS) who are supposed to be protecting innocent lives and properties were reportedly to be in support of the attacks on foreigners (Misago, 2016). Thus, these energized government of some countries such as Nigeria to start repatriating its citizen back home (Gumede, 2015).

Again, in March 2016, another xenophobic treatments and violence was instigated in Katlehong community of Gauteng where foreign nationals were brutally harassed and labeled as “Makwerekwere” meaning “foreigners in South Africa” with all sorts of condemnation (Mkhize, 2016). All these ungodly attacks on fellow human by South Africans were

reported to have occurred due to some conditions the indigenes of South Africa found themselves and believed to have been caused by the foreigners in their land. Hence, if these attitudes are not properly addressed and well handled, it could lead to the law of karma where the nationals of other countries who are victims of South African xenophobia may in turn reciprocate such on South Africans and their properties / investment in their countries as well.

Unlike other xenophobic attacks experienced in other part of African continent, the South Africa’s xenophobia therefore, is always accompanied by violence. The evidence to this could be seen from the 2008, 2015 and 2017 xenophobic attacks on foreign nationals residing in South Africa (Tella, 2018). The experience of some victims of the xenophobia in South Africa revealed that, South African government at all levels need to guarantee the safety of all individuals in its country irrespective of where they come from in order to reciprocate such to its nationals in other countries. According to Misago:

Local residents in these areas have become increasingly convinced that foreign nationals are to blame for all their socioeconomic ills and hardships including poverty, unemployment, poor service delivery, lack of business space and opportunities; crime; prostitution; drug and alcohol abuse; and deadly diseases (cited in Akinola, 2018b).

Therefore, it is obvious that the major root cause of xenophobia claimed by the native of South Africa is the presence of immigrants in the country, particularly, the illegal immigrants entering South Africa (Akinola 2018b; Tella, 2018). However, it has been equally argued that, the South African government encourages its citizens to maltreat other nationals residing in South Africa. The statement made by South African President, Jacob Zuma in his reaction over the 2015 xenophobia in the country is arguably attested to this fact. He stated that:

Our brother countries contribute to this. Why are their citizens not in their countries? It is not useful to criticise South Africa as if we mushroom these foreign nationals and then ill-treat them...Everybody criticizes South Africa as if we have manufactured the problem. Even if people who are xenophobic are a minority, but what prompts these refugees to be in South Africa? It is a matter we cannot shy away from discussing (Maromo, 2015; Mkandawire, 2015)

Hence, the above statement is capable of instigating or encouraging the natives of South Africa, who have or have not actively participated in the act to join the group (Ogunnubi & Amusan, 2018; Oloruntoba, 2018; Wilson & Magam, 2018). Consequently, the impact of such on South Africa with other African countries such as

Nigeria whose relationships are cordial may be affected.

Having related the theory of frustration-aggression to the xenophobic act by the natives of South Africa as posited by Dollard et al. (1939), Berkowitz (1989), and Friedman and Schustack (1999), that the aggression is mostly a product or consequence of frustration. The application of this theory is germane to both the South Africa whose natives carried out the xenophobic attacks on the foreign nationals who are residing in their country. And similarly, the resultant effects of such attacks on the immigrants can jeopardize the relationship between the South Africa and other countries in Africa, particularly Nigeria.

In other words, the benefits that the two countries (Nigeria and South Africa), jointly enjoy may be stopped or paralyzed which may have negative impacts on the nationals of the two countries. Mostly, the resultant effects of the xenophobia in South Africa may affect the South Africa's investments in Nigeria (Gaffey, 2017; Mbamalu, 2017). In fact, that was the point made by the Senator Olusola Adeyeye who alluded to the fact that South Africa's companies and investments in Nigeria such the MTN, DSTV, Nandos, Shoprite, Pep and Game and many more are doing well and making exorbitant profits from Nigerians, yet Nigeria's government is protecting them (Babalola, 2017; Unah, 2017). Hence, the resultant effect of the South Africa's xenophobia which resulted in a series of frustrations to Nigeria's citizens in the country can cause or raise the tension

of aggression on Nigerians over both South Africans and their properties in Nigeria.

## RESULTS AND DISCUSSION

Scholars have alluded some reasons put forward by the indigenes of South Africa as the cause of xenophobic grievances and attacks launched on foreigners or immigrants residing in their land. Some of these causes could be categorized as follow:

The Economic Factors: Some of the citizens of South Africa perceive foreigners in their land as a threat to their economy. In the course of striving for the scarce resources, the indigenes believed that the immigrants who are in South Africa are there to snatch their jobs or employments and income which they think is leading to the high rate of unemployment, inequality in income and poverty in their land (Masenya, 2017; Moge kwu, 2005). South Africans' perceptions on competitive micro-enterprises handled by the indigenes and those managed by the foreigners where the level of customers' patronage on immigrants' shops or businesses are higher compared to those running by the indigenes is part of the differences in the country's economy posed by foreigners in the country (McDonald & Jacob, 2005).

The imbalances noticed in South African economy triggered the maltreatment meted on the foreigners living in the country. As a result of this, Misago opined that:

Local residents in these areas have become increasingly convinced that foreign nationals are to blame for all

their socioeconomic ills and hardships including poverty, unemployment, poor service delivery, lack of business space and opportunities, crimes, prostitution, drug and alcohol abuse, and deadly diseases (cited in Akinola, 2018)

It is important to understand that, the people's migration in Africa irrespective of the duration may be either for social, economic or political reasons. Economically, immigrants are found in various countries in search for employment opportunities in order to improve their livelihood (Oni & Okunade, 2018). The desire of immigrants to search for lucrative jobs in Africa was due to the global desire for the increase in the demand for labour. Hence, people move from one location to another to access basic amenities, education, and healthcare among others, which can add value into their lives (United Nations Population Fund [UNFPA], 2015).

The attachment of economic factor as part of the reasons why the natives of South Africa are attacking the foreign nationals accounts for numerous derogatory names given to African by the South Africans. The Magrigamba is a name given to immigrants from West Africa which implies that, the person arrives South Africa with nothing but will go back to their countries with properties, monies and wealth acquired in South Africa (Tafira, 2011). Similarly, the derogatory identities like, MaNigeria or Maforeigner which means the native of Nigeria and foreigners in South Africa,

respectively (Oni & Okunade, 2018; Tafira, 2011).

The literature has revealed that the skill and initiative which the natives of South Africa lack about trading or business is what made them to have assumed that, the foreigners have taken away their jobs from them (Fagbadebo & Ruffin, 2018). This has made Lindiwe Zulu, the South Africa's Minister for Small Business to have posited that:

Let me tell you why they are better at running shops than the local owners – they have a great network system. And also that is how they live. From the moment they are born, they are introduced to trade. Their mothers, uncles- everyone trades. They started at an early age (Zwane, 2014).

The Minister revealed further that the so called “secret” behind the successful records of foreign nationals business in South Africa is the ability to economize the resources (Fagbadebo & Ruffin, 2018). He stressed further that:

Our people need to learn what other people are doing. They must ask themselves; how are they able to be successful in a space where we fail? Then they must look, learn and do the same. They must do it; the government cannot, the ministry cannot. We cannot just give money away. We have no money to give (Zwane, 2014).

Similarly, evidence from the literature has shown that the foreign immigrants

in South Africa have contributed to the economic and other developments taking place in the country. This is argued by Meintjies that:

Studies have shown that immigrants are, in fact, net contributors, not parasites. Immigrants are, on average, healthier, more energetic and better educated than people in the host population. Consequently, they draw comparatively less on social welfare and other social services. Many pay tax and, through their entrepreneurship, make a positive injection into local economic development (Maharaj, 2002).

Aside from the claims that the foreign immigrants take the jobs of South Africans, literature has equally argued it that, an average native of South Africa are lazy (Shulika & Sabi, 2018). According to Tafira, (2018), majority of the South African's blacks, who see themselves as native of the country do not considering looking for job an option, rather they utilize their time idling or sitting in township. He posited further that:

While these South African men are accusing immigrants of taking all the jobs for less pay, immigrants and South African women generally say South African men are lazy, do not like to work, and kill their time drinking, sleeping

and playing dice, where they may win a couple of Rands and then drink with the earnings... Alexandra women are not keen to have relationships with these kinds of men. Unemployed men are seen as both *dom Khanda* (thick-headed) and *omahlalela* (loafers) unable to provide and both inadequate and not real men. Women, rather, are looking for men who are either employed or are seen to make money in other ways. This kind of man happens to be the immigrants (Tafira, 2018).

Therefore, the attitudes among some native of South African, particularly the blacks toward their means of livelihood has made their women to always patronize the immigrants (Saleh, 2015; Tafira, 2018). The jealousy among the unemployed South Africans arose the neo-apartheid relations which resulted in the killings and attacks of the innocent immigrants.

Similarly, other reasons for xenophobic violence in South Africa could be grouped as follows;

**The Political backup:** Scholars have observed that one of the causes of the persistence in the attacks of foreign nationals in South Africa is simply because the perpetrators enjoy the supports of relevant government apparatus or departments in South Africa (Masenya, 2017). As argued by Klotz (2016), and Crush and Ramachandran (2017), the relevant government departments who are supposed to protect the human rights

in the State has been found to be biased in its dealing, exposing the immigrants to all sorts of abuses, attacks and discriminations to the point of losing lives and properties. It is important to note at this point that, as long as the government of South Africa does not rise up to curb the menace with full implementation and enforcement of laws or policies prohibiting such acts, the lives and properties of foreign nationals will continue to be unsecured.

**The Perception of South Africans on Non-indigenes:** Scholars associated xenophobia in South Africa to some of the heritage inculcated in South Africans during apartheid (Kalitanyi & Visser, 2010). The racism in South Africa's history has made the indigenes of the country to have the perception that the foreigners particularly the blacks who are residing in the country are there to hijack their economy, spread deadly diseases, and above all taken over their land from them (Zouandé, 2011). It is the belief of some South Africa's indigenes that the best way to deal with the matter is to make lives uncomfortable for the foreigners who are in the country in order to leave and return to their various native lands.

**Cultural Norms and Beliefs:** The xenophobic attacks on non-indigenes in South Africa were not only confined to foreign nationals but also to any person that does not belong to the dominant groups in the country. For a South African not to be attacked, the person must be either Zulu or Xhosa. Citizens of South Africa who do not belong to these dominant groups will be seen as foreigners (Gumede, 2015;

Masenya, 2017). The dominant groups in South Africa prevented their children from getting married to people tagged as foreigners and vice versa. This attitude has made it easier for the perpetrators of the evils through xenophobia to carry out their discriminate killings and attacks on foreigners.

Attitude of South African Government towards xenophobia in the country: The whole blame of the xenophobic attacks on foreign nationals in South Africa has arguably apportioned on its government (Fayomi, Chidozie, & Ayo, 2015; Masenya, 2017). The government of South Africa has been accused of nonchalant attitude to enact laws or policies that will bring end to the illicit acts in the country and at the same time its failure to bring the perpetrators to book (Akindès, 2009). In as much as the government of a country is not ready to take the bull by the horn by dealing decisively with the criminally minded people in the society, such environment will not know peace as the hoodlums will take advantage to carry out their nefarious activities.

Therefore, molestation and frustration experienced by Nigerians and other foreign nationals who are residing in South Africa has caused serious havoc to many in the country. Some become widows or widowers, while some children become orphans and many whose properties were destroyed or carted away by thieves under the pretence of xenophobia are subjected to series of financial difficulties. Hence, the country whose nationals have witnessed any of the above conditions or more may be influenced

to redefine its foreign policy direction towards South Africa.

To this end, it will not be in the interest of Africa to experience disunity or any act that can cause crisis between and among the African countries. The foreign nationals in South Africa, particularly the Africans, are having their countries contributing to the development of the continent in either stability contribution as the case of Nigeria, others are contributing in the areas of economic socials and political settings of the continent. Therefore, the earlier Africa realizes the need for the continent to avert all forms of racism or discrimination, the better for it to promote the existing cooperation among the African countries for the continent to develop.

## CONCLUSION

The reoccurrence of xenophobia in South Africa is capable of breaking the relationship between the country and other African countries, particularly Nigeria whose nationals were among those molested or victimized by the natives of South Africa. Nigeria - South Africa economic and diplomatic ties which have developed through mutual relationship between the two countries in African continent may be affected as a result of the attacks on Nigerians in the country (Koutonin, 2016). If this happens, it will affect the role that the two countries have been playing jointly in Africa towards the development of the continent.

Historically, Nigeria's foreign policy towards Africa which South Africa shared

similar attribute, has made the government of the former in its big brother role in the continent to have favoured the entire Africa in its leadership role and stability commitment in African continent (Chukwuka, 2017; Ifijeh, 2017). The Afrocentric policy of Nigeria influences the country in its stability and developmental contribution to Africa. Nigeria's commitment to Africa has its long history particularly its efforts towards the campaign against apartheid in Africa. This has translated to the creation of United Nations Special Committee against Apartheid through the lobbying by Nigeria's government with some countries. The Committee was overseen by Nigeria as its chair for 30 years. The country equally loss over \$41 billion due to its reaction against apartheid by forfeited its trade with South Africa through stop selling oil to the latter for decades in protest against discrimination by white minority in South Africa (Koutonin, 2016). Nigeria was one of the first category in the world to set up the National Committee Against Apartheid (NACAP) as far back as 1960 (Ana-Caj, 2017). The government through NACAP embarked on series of awareness, orientations and sensitization on the evil of apartheid as crime against humanity.

Similarly, Nigeria has been shouldered with the responsibility to bring an end to apartheid since its independence to the level of being given sanctions by the Britain. Between 1960 and 1995, Nigeria alone had spent \$61 billion so support the end of apartheid in South Africa (Channels News, 2017). Nigeria even demonstrated its

displeasure over apartheid by boycotting the Olympic Games and Commonwealth Games to the nationalization of British Petroleum assets in 1979. All these contributions by Nigeria to South Africa command respect and gratitude from the latter to the former (Ana-Caj, 2017)

However, the xenophobic attacks in South Africa against the immigrants residing in the country, which Nigeria's nationals were equally affected has been viewed in the Nigeria's perspective that, "South Africa is often considered as an ungrateful" (Ogunnubi & Amusan, 2018). This is because the South Africans' act of shedding blood of innocent immigrants and destroying of their properties under the pretence of taking their jobs, controlling their economy, spreading deadly diseases among others is arguably not convincing for attacks to be launched on foreign national (Unah, 2017). This has influenced Nigeria's government to condemn the illicit act and described such as barbaric in Africa. The South African Government is urged to take decisive measures to protect both Nigerians and other Africans within the country's borders. Similarly, Nigeria's Senior Special Assistant to President on Foreign Affairs and Diaspora, Honourable Abike Dabiri-Erewa urged the AU to intervene in order to find a lasting solution to the ugly incidents in South Africa (Channels News, 2017).

As it has been argued by Senator Olusola Adeyeye that for "every penny a Nigerian made in South Africa, South Africans are making multiple of that in Nigeria", therefore the government of

South Africa and those that involved in the ill-treatment of foreigners in their land should take some caution (Chukwuka, 2017). The assertion by the Senator alluded to the fact that South Africa's companies and investments in Nigeria such the MTN, DSTV, Shoprite and many more are doing well and making exorbitant profits from Nigerians yet Nigeria's government is protecting them (Unah, 2017).

From the foregoing it is arguable that South Africa depends on other African countries for some of the achievements attained in the country. Similarly, as part of the move to promote African economic and development, there is need for cooperation and stability among the African the African states. This can only be achieved in the absence of discrimination and abuse of foreigners by local indigenes of their residing countries. Achieving this will promote the partnership and cooperation among the countries in Africa and at the same time achieve the common goals toward the development of the continent. South Africa like other countries in the Africa has cordial relationship with Nigeria which has involved signing of various agreements and treaties between the two countries in the areas of economic, security and diplomatic ties. Hence, Nigeria's citizen diplomacy as included in the country's foreign policy sought for the protections of Nigerians and their properties both home and abroad. Therefore, if South Africa's xenophobia on foreign nationals continues, there is possibility that the ties between the two countries and with other African countries

may break. It becomes pertinent for Africans to see themselves as one and brothers irrespective of race, colour, gender, and background for the continent to progress.

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## **Development of the Concept Human Security in the Southern Border Provinces of Thailand**

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### **ABSTRACT**

This research was to develop the concept of human security in the southern border provinces of Thailand. Its concept found by the researcher differed from many scholars and other organizations in some issues because each area marked its own different contexts. Human security needed developed within the contexts of each area. Reflecting the human security concept developed by Ministry of Social Development and Human Security, the Baldwin-based model was related to individual and community security while security for values covered the safety of lives and property, peace and a better quality of life. On the other hand, the security from threats involved being freed from fears of mass media, poverty, narcotics, influential smuggling groups, politics, insurgencies, local people, and the state. In tandem with these findings, security by what means revealed the two elements of the public sector and civilian sector. The public sector involved protection, empowerment, the improvement of local administrative processes and the improvement of policy process based on local areas in development. The civilian sector included involvements in activities, news report and self protection.

*Keywords:* Development, human security concept, southern border provinces

### **INTRODUCTION**

Thailand established the Ministry of Social Development and Human Security authorized to develop society, encouraging fairness and equality in society, while promoting and developing the quality of life and security of families and the communities. The Ministry conceptualized the framework of Human Security founded in the United Nations Development Programme Human

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Development Report 1994 with two aims, that is, (1) freedom from fear and (2) freedom from want (United Nation Development Program [UNDP], 1994). It shifted the national security concept to the security of the populace since it was the national cornerstone. The Ministry later conducted research to develop standards and indicators of human security utilized as the tools to evaluate social situations and to be a channel and a destiny to achieve human security in general. Identifying standards and indicators of human security had been the west and the UNDP oriented. They had also been developed from brainstorming by those involved through discussion platforms and opinion surveys, included with prioritizing oriental lifestyles to adequately engage with the Thai context. There were mediations on quality of life and threats, which identified the indicators that cover freedom from want, equal opportunities, and freedom from fear. There were limitations with some indicators that were inaccessible and this needed replacement by other indicators. However, they were unable to directly and clearly mirror human security (Office of Social Development and Human Security Standards, 2012). The actual situation of human security, therefore, required surveys and data collection using methods directly covered systems and meetings and regular revision.

The southern-border insurgencies seemed endless and prolonged with more surging violence. This insurgency brought economic and social losses to the three southern-border provinces. Data from

Deep South Watch (DSJ) were the violence recurred within the past 101 months during May 31 2012 to 4th January 2014 was incremental and entered the 9th year of violence. There were 11,754 insurgencies in the three southern border provinces leading to an alarming number of 14,343 deaths and injuries. Of this number, 5,206 were dead and 9,137 were injured. The insurgency was therefore seen deadly and affecting the way of life and the very existence of the people, threatening human security, and slamming the national security. Therefore, it was hard to establish human security to cool down conflicts and to develop the southern-border provinces. Baldwin (1997) advocated that to establish the concept of human security, it needed to begin with defining human security since its definition varied distinctively from one country to another. In Thailand, the Ministry of Social Development and Human Security had defined human security since 2005 but it was varied by year. Thailand applied this definition as “the people have been warranted on rights, safety, responsiveness to basic needs, ability to live in society with honour and equal opportunities of latency development of oneself” (Office of Social Development and Human Security Standards, 2014). This definition had become the basis for the development of human security nationwide.

In examining the deep-south areas with their contexts and situations, they differed from other areas of the country. The human security concept was certainly different. This corresponded with Sukhothaithammathirat

University's (2006) prediction that the diverse definitions of human security might confuse defining human security, and that it should not be inclusively interpreted because it might create complexity in accessing information and became useless in solving problems. In fact, it should be specifically and clearly defined to target different groups so as to gain pertinent ideas and lead to more precise solutions. Therefore, the concept of human security requires considerations within a specific context. This was also corresponded with Wattanasiritham (2006) who stated that the deep-south insurgency was a clear and challenging problem in applying the concepts and principles of human security for authentic outcomes. Rationally, they were recurrent, violent and more complex for the state to address only by using state power or the traditional understanding which emphasized only national unity but disregarded the necessities of human security.

What should then be the characteristics of the concept of human security in the southern border provinces of Thailand? The researcher has determined to develop a human security concept to meet the context of these deep-south areas.

### **Research Objective**

To conceptualize the human security in the deep-south areas.

### **Expected Benefits**

Knowledge gained from this study could provide ways to promote human security

that was important to develop citizens and the country, to design human security policy and further strengthen the deep-south areas.

### **Scope of the Study and the Conceptual Framework**

The researcher has adopted the concept of Baldwin (1997) as the conceptual framework. The module involved four questions as follows:

- Security for whom?
- Security for which values?
- Security from what threats?
- Security by what means?

### **Literature Review**

International security was the measurable amalgamation adopted by countries and world organizations like the UN, EU, ASEAN, and other nations to ascertain mutual safety and survival. These magnitudes involved military missions and diplomatic understandings like conventions and treaties. National and international security was unchangeably linked. Global security was domestic security or national security in the international arena. When World War II ended, global safety hiked, and research flooded from 1950 when peace studies, security studies, strategic studies and the like were established (Buzan & Hansen, 2009; Sheehan, 2005). The definition of "security" is treated as a common sense terminology that could be implicit with "unacknowledged consensus" (Sheehan, 2005). The international security contents covered various interconnected issues worldwide affecting survival ranging

from the conventional military power modes, roots and results of war between countries, economies, ethnicity, ideological and religious conflicts, economic and trade conflicts, energy supply, technology and science, food, including human security threats and state stability from environmental degradation, climate change, contagious diseases, and non-state actors' activities (Buzen, Waever, & de Wilde, 1998; Doty & Carnesale, 1976)

Human Security by UNDP (1994) pinpointed: (1) investing in human development, not in arms; (2) engaging policy makers to address the emerging peace dividend; (3) giving the United Nations a clear mandate to promote and sustain development; (4) enlarging the concept of development cooperation so that it includes all flows, not just aid; (5) agreeing that 20% of national budgets and 20% of foreign aid be used for human development, and (6) establishing an economic security council.

The seven components to human security by UNDP as Tadjbakhsh and Chenoy (2007) list them, are: *first*, economic security was defined as an assured basic income because it was threatened by poverty, unemployment, indebtedness, and lack of income. *Second*, food security referred to physical and economic access to basic food due to being threatened by hunger, famines and the lack of physical and economic access to basic food. *Third*, health security meant protection from diseases and unhealthy lifestyles, jeopardized by inadequate health care, new and recurrent diseases including epidemics and pandemics, poor nutrition

and unsafe environments and lifestyles. *Fourth*, environmental security was defined as a healthy physical environment cowed by environmental degradation, natural disasters, pollution and resource depletion. *Fifth*, personal security referred to security from physical violence endangered by the state (torture), other states (war), groups of people (ethnic tension), individuals or gangs (crime), industrial, workplace or traffic accidents. *Sixth*, community security meant safe membership in a group threatened by the group (oppressive practices), between groups (ethnic violence), or from dominant groups (e.g., indigenous people vulnerability). *Seventh*, political security was defined as living in a society that honors basic human rights threatened by political or state repression, including torture, disappearance, human rights violations, detention and imprisonment.

Baldwin (1997) proposed dividing human security into four questions, that was, Security for whom?, Security for which values?, Security from what threats?, and Security by what means?. *First*, Security for whom was defined by Baldwin as for the individual (some, most, or all individuals), the state (some, most, or all states), the international system (some, most, or all international systems), and so on. *Second*, security for which values included physical safety, economic welfare, autonomy, psychological wellbeing, political independence, territorial integrity, the maintenance of "economic relations with the rest of the world on reasonable terms" as national security. *Third*, security from

what threats included potential burglars or home threats, different state conflicts or national threats, ideological threats, economic threats, military threats, and some combination thereof. *Fourth*, security by what means involved a variety of means, that is, international politics, international relations, threat, use, and control of military force.

The Office of Social Development and Human Security Standards (2014) involved *first, security for whom*, which included, individuals, community and state. *Second, security for what values* including security, good quality of life, personal freedom, human dignity, freedom from fear, freedom from want, economic development, social fairness, respect of human rights and laws, political rights, environmental protection, equal opportunities, and following democracy. *Third, security from what threats* involved violence against life and a property/criminal problems, violation of human rights/destroying human dignity/oppression, discrimination, the fall of community/local migration, absence of involvement, uncertain income, and career/economic problems. *Fourth, security by what means* included protection and empowerment.

## METHODS

The researcher aimed to develop the human security concept in the Southern border provinces of Thailand. The findings would further be used in crafting policy to meet human security development. The methodology was as follows:

## Research Design

From literature reviews, it was found that the issues in creating human security were people-centered concepts of development. Therefore, qualitative research was the most relevant to this concept because the social and cultural contexts involved people needed to be analyzed for interpretation to acquire knowledge and truth. However, the more significance was human security development that allowed the local people to reflect on the facts of their own experiences. As such, knowledge and truth related to human security could reflect the very fact of local security by real situations. Qualitative research had therefore been selected for this research and the methods used were as follows:

1. Document Study—to explore documents from secondary data.
2. Field Research—in-depth interviews and focus group discussions had been conducted with key informants in the two field research interviews as below.

The first field research—150 key informants were interviewed with a structured interview as a tool. The objectives of the first field research were to collect data raised in the research objectives and to prepare a temporary synopsis.

The second field research—46 key informants were interviewed and attended focus group discussions. They were categorized as 16 key informants from the in-depth interviews while 30 key informants attended six focus group discussions. The

objectives of the second field research were to collect data raised in the research objectives and to assert the synopsis of the first field research while validating all the data.

### Key Informants

Informants have been divided into two groups by field research as follows.

**Group 1: The First Field Research.** 150 residents living in the provinces of Pattani, Yala and Narathiwat were distributed as in Table 1.

Table 1  
*The key informants of the first field research*

Provinces	Districts (N)	Sub-districts (N)	Villages (N)	Total (N)
Pattani	5	13	21	50
Yala	5	13	21	50
Narathiwat	7	15	37	50
Total	12	41	79	150

### Group 2: The Second Field Research.

Forty-six key informants were people of the provinces of Pattani, Yala and Narathiwat who were administrators in the Southern Border Provinces Administrative Centers, administrators of the Internal Security Operations Command Region 4, former politicians, scholars, religious leaders, district chiefs, village chiefs, village deputy chiefs, Thai-Buddhists, and Thai-Muslims. They were divided into 17 Thai-Buddhists and 29 Thai-Muslims as shown in Table 2.

Table 2  
*The key informants of the second field research*

Provinces	Religions		Total
	Buddhism	Islam	
Pattani	5	9	14
Yala	4	11	15
Narathiwat	8	9	17
Total	17	29	46

### The Research Instruments

The first one employed a structured interview format while the second one employed in-depth interviews and the in-depth interview guide. The format and the guide were adopted from Baldwin's four key questions (*security for whom?, security for which values?, security from what threats?, and security by what means?*) but the contents had been adopted from the Office of Social Development and Human Security Standards (2014). They involved *first, security for whom*, which included, individuals, community and state. Secondly, *security for what values* includes security, good quality of life, personal freedom, human dignity, freedom from fear, freedom from want, economic development, social fairness, respect of human rights and laws, political rights, environmental protection, equal opportunities, and following

democracy. Thirdly, *security from what threats* involved violence against life and a property/criminal problems, violation of human rights/destroying human dignity/oppression, discrimination, the fall of community/local migration, absence of involvement, uncertain income and career/economic problem. Fourthly, *security by what means* included protection and empowerment. The researcher specified the process of developing the conceptual framework which was divided into three steps: (1) development of the draft on human security concepts; (2) a test of the human security concept, and (3) the assertion of the human security concept.

#### **The Instrument Quality Check**

To check the quality of the instruments used in the study was focused on the content validity of all the three types through testing their validity by three experts. The content validity was tested on its accountability, measurability, clarity, and the instruments have been improved according to the instruction of the experts to meet the research objectives.

#### **Data Collection and Data Analysis**

This research collected data through in-depth interviews conducted with 150 key informants and 46 participants for focus group discussions during the two field research trips. Data from the in-depth interviews and from the focus group discussions were analyzed with content analysis of contextual units and by categories.

## **RESULTS**

### **Analysis of the Responses to the Four Questions According to Baldwin by Domestic and International Scholars**

In analyzing responses to the four questions based on Baldwin (1997) by international scholars, the researcher proposed the concepts of the workplace, scholars, and the country, which were the pivots for human security. They were found in the UNDP (1994), Thiprat (2001), Bajpai (2002), Otaga (1999), Thomas (2000), Chaikew (2009), Sudjit (2010), Osman, Udamlamul, Masor, and Wuttiwong (2011), Musika (2014) and Thampitug (2016). In Thailand, the researcher adopted the concept from the Office of Social Development and Human Security Standards (2014) as the data for analysis and could be seen in Table 3.

The researcher applied the draft of human security concepts in the southern border provinces and the analysis of which was summarized in Table 4

From Table 4, it was found that the analysis of data from field work were differed from the draft of human security concept in the southern border provinces as the researcher had analyzed in the first step so that it would correspond with the local context. The researcher utilized the analyzed data gained from the Baldwin-based four questions with the contents from Ministry of Social Development and Human Security.

The researcher used the analyzed concepts from Table 5 in order to assert the concepts formed by the researcher. Structured interviews had been conducted with 46 informants. The results of analysis correspond with the conceptual framework.

Table 3  
*The human security concept in the southern border provinces*

Security for Whom?	Security for What Values?	Security from What Threats?	Security by What Means?
- individuals -community -state	- security - good quality of life - personal freedom - human dignity - freedom from fear - freedom from want - economic development - social fairness - respect of human rights and laws - political rights - environmental protection - equal opportunities - following democracy	- violence against life and property/criminal problems - violation of human rights/destroying human dignity/oppression - discrimination - the fall of community/local migration - absence of involvement - uncertain income and career/economic problem	- Protection - Empowerment

Table 4  
*The human security concepts collected by field work*

Questions	The concept	Data of field work	
		Analysis results	Frequency
Security for whom?	- individual	- individual	97 (64.7%)
	- community	- community	66 (43.9%)
	- state		
Security for what values?	- security	- safety of life and property	134 (89.3%)
	- good quality of life	- peace	97 (64.7%)
	- personal freedom	- good quality of life	102 (67.9%)
	- human dignity		
	- freedom from fear		
	- freedom from want		
	- economic development		
	- social fairness		
	- respect of human rights and laws		
	- political rights		
	- environmental protection		
Security from what threats?	- violence against life and property/criminal problems	- mass media	35 (23.3%)
	- violation of human rights/destroying human dignity/oppression	- poverty	104 (69.3%)
	- discrimination	- narcotics	72 (47.9%)
	- the fall of community/local migration	- influential groups of trafficking	34 (22.6%)
	- absence of involvement	- politics	32 (21.3%)
	- uncertain income and career/economic problem	- insurgencies	129 (85.9%)
		- local people	63 (41.9%)
	- state	52 (34.6%)	

Table 4 (continue)

Questions	The concept	Data of field work	
		Analysis results	Frequency
Security by what means?	- protection - empowerment	<u>Public Sector</u>	
		- protection	89 (59.3%)
		- empowerment	72 (47.9%)
		- improvement of local administration process	51 (33.9%)
		- improvement of policy process based on local areas in development	28(18.6%)
		<u>Civilian Sector</u>	
		- involvement in activities	73(48.6%)
		-involvement in news report	43(28.6%)
		-involvement in self-protection	64(42.6%)

Table 5

*Creating human security concept gained from fieldwork*

Security for Whom?	Security for What Values?	Security from What Threats?	Security by What Means?
- individual - community	- safety of life and property - peace - good quality of life	- mass media - poverty - narcotics - influential groups of trafficking - politics - insurgencies - local people - state	<u>Public Sector</u> - protection - empowerment - improvement of local administration processes - improvement of policy processes based on local areas in development  <u>Civilian Sector</u> - involvement in activities -involvement in news report -involvement in self-protection

The researcher found that 134 or 89.3% participants valued the safety of life and property (SWV). 129 or 85.9% participants agreed that insurgencies and poverty (104 or 69.3%) threatened their daily life. 102 or 67.9% participants valued their decent quality of life. Ninety-seven participants

or 64.7% needed individuals to be secure. Ninety-seven participants or 64.7% valued peace. Eighty-nine participants or 59.3% needed protection as the means from the public sector. Seventy-three (48.6%) participants needed involvement in activities as the means from civilian

sectors. Seventy-two (47.9%) participants agreed narcotics were a threat. Seventy-two (47.9%) participants needed empowerment as a means from public sectors. Sixty-six (43.9%) participants needed to secure their communities. Sixty-three (41.9%) participants needed involvement in self-protection as a means from civilian sectors. Fifty-two (34.6%) participants perceived that the state was a threat. Fifty-one (33.9%) participants needed improvement of local administration process as a means from the public sector. Forty-three (28.6%)

participants needed involvement in news reports as a means from the civilian sector. Thirty-five (23.3%) participants thought that mass media was a threat. Thirty-four (22.6%) participants thought that influential groups of traffickers were a threat. Thirty-four (22.6%) participants thought that politics was a threat. Finally, 28 (18.6%) of participants needed improvement of policy processes based on local area development as a means from the public sector as presented in Table 6.

Table 6  
*Ranking demands of human security*

Development Needs in Human Security in the Southern Border Provinces of Thailand		Freq. (%)
1.	Safety of life and property (SWV)	134 (89.3%)
2.	Insurgencies (SFT)	129 (85.9%)
3.	Poverty (SFT)	104 (69.3%)
4.	Good quality of life (SWV)	102 (67.9%)
5.	Individual (SFW)	97 (64.7%)
6.	Peace (SWV)	97 (64.7%)
7.	Protection (PS-SWM)	89 (59.3%)
8.	Involvement in activities (CS-SWM)	73 (48.6%)
9.	Narcotics (SFT)	72 (47.9%)
10.	Empowerment (PS-SWM)	72 (47.9%)
11.	Community (SFW)	66 (43.9%)
12.	Involvement in self-protection (CS-SWM)	64 (42.6%)
13.	Local people (SFT)	63 (41.9%)
14.	State (SFT)	52 (34.6%)
15.	Improvement of local administration process (PS-SWM)	51 (33.9%)
16.	Involvement in news report (CS-SWM)	43 (28.6%)
17.	Mass media (SFT)	35 (23.3%)
18.	Influential groups of trafficking (SFT)	34 (22.6%)
19.	Politics (SFT)	32 (21.3%)
20.	Improvement of policy process based on local areas in development (PS-SWM)	28 (18.6%)

*Notes: SFW: security for whom; SFV: security for which values; SWT: security from what threats, and SWM: security by what means. (Very low: 0-20%; low: 21-40%; moderate: 41-60%; high: 61-80%; very high: 81-100%)*

## DISCUSSIONS

### Security for Whom

Based on Baldwin's "*Security for Whom*"; human security was the concept counted individuals or people were the major referral targets in security but not rejected the state security yet views the state plays the key roles in protecting its citizens in its own state. State security was not its own end but the tool or a medium leading to human security. The three-border provincial southerners of Thailand highly agreed (64.7%) with individual security whereas they moderately agreed (43.9%) with community security. Jongstitman, (2003) advocated that the target should consider the levels of family, communities, villages, locality, society, and nation, which meant the common security of people in a country was national security itself. However, the concept of human security does not place importance on just individuals as being the referral targets of security but gives importance to the players such as communities, localities and societies. The researcher observed that security has highly prioritized individuals and communities which meant that southern insurgents seemed to take personal vengeance which the communities knew well. Authorities should conduct informal investigation on deep-rooted-vengeance-led southern insurgencies in order to bring freedom from fear and sustainable peace to the areas more quickly.

### Security for Which Values

Human security with regards to *Security for Which Values* is people-centered with its core value of having protection (unrestricted physical safety) yet including other values such as wellbeing, human dignity, equity, rights and freedom. It was imperative to begin considering at the individual level as security targets, which meant creating involvement to set human security values before considering the group level. The three-border provincial southerners of Thailand very highly agreed with the values of safety of life and property (89.3%), good quality of life (67.9%) and peace in the area (64.7%). However, Boonthum (2010), Haq (1995) and Otaga (1999) argued that to protect security values, it was important to strengthen human security values through empowerment. Here, the researcher observed that had the three-border provincial southerners of Thailand achieved safety of life and property, their quality of life and peace in the area would be growing, which meant that both the state and local authorities should have extraordinary intimate collaboration and trust to bring safety of life and property to the three southern border provinces of Thailand, and all southerners would achieve a decent quality of life and peaceful lives.

### Security from What Threats

Human security is a concept placing importance on individual protection; herewith, what had to be considered was when the focus of security in on humans. Threats to human security were possible

with physical violence or direct violence which means violence against the body such as genocide, terrorism, crimes and narcotics and so on. The three-border provincial southerners of Thailand very highly feared insurgencies (85.9%) and highly feared poverty while moderately fearing narcotics (47.9%) and local people (41.9%). It could be the violence that Galthung (1969) called structural violence or indirect violence, for example, inequality of economy and society, discrimination between genders, and educational disadvantages. However, the core value is not then fixed on safety alone but includes other values, too, including wellbeing, human dignity and others. The researcher claims that threats come from diverse and different dangers with formless models but human security was the only key to pervasively countering various threats terrorizing human daily survival and dignity.

In addition, threats to human security were possible as objective threats such as unemployment, inadequate income and inability to access health services and so on. The subjective threats were feelings of the absence of human dignity, fear of radical conflict and powerlessness to control one's fate and so on. Threats against human security are possibly traditional threats or military threats such as wars, battles and deployment of nuclear weapons and so on. Non-traditional threats are such threats as those against the economy, society, the environment and quality of life.

It could be good signs that the three-border provincial southerners of Thailand, at a low level, feared the state (34.6%),

mass media (23.3%), influential groups of trafficking (22.6%), and politics (21.3%). This means that the local people gradually trusted the state more. Trusting the state would bring more cooperation from local people, which allows them to gain safety of life and property more effectively. With state development projects, their fear of poverty would be gradually lessened. However, a low fear of mass media and influential traffickers might signal that the local southerners knew the mass media launched propaganda for self-gain and who the influential traffickers who dragged Thailand into Tier 3 were, which also destroyed the southerners' fishery careers. The researcher would recommend that the time is ripe for the state authorities to bring freedom from fear and freedom from want to the local southerners.

### **Security by What Means**

Human security is not a concept only expanding the scope of threats but to alter the focus more deeply through transferring the security analysis agency to individuals. With this perspective, it transformed local people from "state citizens" to key "players"—equating the state and other players on the stage of international relations and its implication also affected international security. Nef (1999) claimed that if individual safeties were the key for global security, then individual insecurity had been threatened, which meant that international security was also threatened. However, public sectors regarding protection (59.3%), and

empowerment (47.9%) by the public sector are seen as just moderate. Improvement of local administration processes (33.9%) and improvement of policy processes based on local area development (18.6%) were low and very low respectively. The researcher observed that “security by what means” referred to the southerners having no objection to any measures and most of them sensing that the government had fulfilled its masons and the existing process and development were advantageous to locals. This means that the government has to take the advantage to end the southern insurgencies since most people accept the administration, processes and measures the government has taken. Southerners soundly trusted the government and such an opportune time might not return a second time.

With regards to the civilian sector as a man; values become the ultimate target such as survival; wellbeing and human dignity such that all structures, regardless of the state, political institution or market system, have been transferred into the second class or becoming channels leading to human security. When the concept of human security is enlarged and the context is changed, the creation of human security should at least be different in four ways from its traditional form (Bajpai, 2002), that is, humans and human governance, sustainability, soft power to create understanding and peaceful cooperation, and entire cooperation between all parties. However, the three-border provincial southerners moderately agree with involvement in activities (48.6%),

involvement in self-protection (42.6%), and at least agreed with involvement with news reports (28.6%). The researcher observed that the southerners were indifferent to involvement in any claimed peace-led activities and to self-protection and news reports, which signals that if the government disregards security of life and poverty (89.3%), ending insurgencies (85.9%), ameliorating poverty (69.3%), and quality of life (67.9%), even though they may disregard influential trafficking groups, politicians and local-based development. This indicates that southerners were frustrated with the absurdity of the government trying to end insurgencies when they trusted and wanted to cooperate with the state administration.

## CONCLUSION

It was found that the concept of human security in the southern border provinces according to the responses to the four questions proposed by Baldwin was:

1. Security for Whom? The three-border provincial southerners of Thailand highly agreed (64.7%) with individual security, whereas they moderately agreed (43.9%) with community security.
2. Security for What Values? The three-border provincial southerners of Thailand very highly agreed with the values of safety of life and property (89.3%), good quality of life (67.9%), and peace in the area (64.7%).
3. Security from What Threats? The three-border provincial southerners

of Thailand very highly feared insurgencies (85.9%) and highly feared poverty but moderately feared narcotics (47.9%), and local people (41.9%). It could be a good sign that the three-border provincial southerners of Thailand, at a low level, feared the state (34.6%), mass media (23.3%), influential groups of traffickers (22.6%), and politics (21.3%). This indicates that the local people are gradually trusts the state more.

4. Security by What Means?
  - 4.1. Public sector: protection, empowerment, improvement of local administration process, improvement of policy processes based on local area development.
  - 4.2 Civilian sector: involvement in activities, involvement in news reporting, and involvement in self-protection.

### Recommendations

The state should strengthen measures to reduce mistrust and to increase cooperation between the state and the people-prioritizing selection of agents to work in the southern border provinces.

Administrators of public agencies working in the area should be encouraged to have a working knowledge and understanding of, and awareness of the values, lifestyle, religion, cultures and local identity with training in knowledge-sharing. They should work with a deeper understanding and

awareness while accepting and respecting cultural particulars and the local ways of life in order to eliminate and prevent new conditions leading to insurgencies.

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## **A Genre Analysis of the Literacy on Taqwa in Surah Ali-‘Imran**

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### **ABSTRACT**

The discussion on the literacy of Taqwa had been carried out for many centuries among Islamic scholars. However, empirical studies examining the concept of Taqwa as a construct at the fundamental level are rather scarce or almost non-existent. Hence, the purpose of the present study is to empirically analyze the traits of Taqwa within the context of the language of the Quran in surah Ali-‘Imran, the third surah in the Holy Quran. The data for this study were obtained from surah Ali-‘Imran using purposive sampling. A validity procedure was conducted for the extracted verses, which were inferred to reflect the traits of Taqwa in the selected Surah. The data were analyzed using manifest and latent content analyses. The findings reveal 21 categories of traits of Taqwa presented in Surah Ali-‘Imran, which are Tawheed, Patience, Tawbah, Consciousness of Allah, Gratefulness, Calling to Allah’s Path (Da’awah), Obedience, Reliance on Allah, Steadfast/Istiqomah, Performing Solah, Do Good to Others, Zakat/Charity/Alms and Humbleness, Controlling/Suppressing Anger, Forgiving, Honesty, Keeping Promise, Praising Allah/Tasbeeh, Fear of Allah’s Punishment and Travel to Learn. The major emphases are on believing in the Oneness of Allah/Tawheed and Doing Good Deeds. The findings help in building a model of traits of Taqwa as a general guideline for Muslims to better understand the meta-framework of traits of Taqwa of which model is useful in the teaching of the literacy of Taqwa in the educational realm.

*Keywords:* Al-Quran, content analysis, Genre analysis, sequential-based analysis, Taqwa

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### **INTRODUCTION**

Regardless of one’s belief, for decades, many religious studies have been conducted to describe religiosity from various perspectives and contexts (Allport & Ross, 1967; Donahue, 1985; Francis, 2007; Koenig, Meador, & Parkerson, 1997; Hunter & Merrill, 2013; Khodadady & Baghery,

2012; Nurasikin, Aini, Aida, & Ng., 2010). Within the context of Islamic perspective, one aspect, which is Taqwa, is a concept that insofar has not been empirically studied within the conventional domain in relation to established reports in the mainstream publications. Empirical study is concerned with verifiable observation or experience rather than merely using theory or pure logic. Within Islamic studies, the concept of Taqwa has commonly been theoretically presented as discussion in books in terms of what is thought to be arbitrarily relevant relationships amongst Quranic verses and hadiths but such interpretation has not been approached using the context of systematic conventional research that involves evidence in measurable terms. Therefore, this paper presents the report of an empirical study on the concept of Taqwa as examined in the Holy Quran.

The term 'Taqwa' is frequently mentioned in the holy Quran in various forms of conjugation, to mention a few such as *muttaqun* (al-Baqara verse 2), *ittaqau* (Ali-'Imran verse 15), *taqiyya* (Maryam verse 18). Regardless of its conjugated forms, it fundamentally carries the semantic reminder of the importance of a believer to be in the state of God-fearing individual. Beyond al Quran, the reminder to be a believer who is God-conscious can be traced, for instance, in Islamic Friday sermons in which it is mandatory for the *khatib* to call and remind the Muslims to have Taqwa to Allah, indicates the importance of Taqwa. Hence, Taqwa is considered to be the spiritual concept

which should be developed in Muslims so that they may keep themselves in the right path as stated in Surah Al-Fatihah verse 5; the Surah, which Muslims are commanded to recite 17 times in a day. Such a commandment from Allah SWT suggests the importance of Muslims to attain Taqwa in order to remain in the right path. Despite the many Islamic talks and publications on Taqwa, the Muslim laymen are still groping as to what the concept really means. Based on the researcher's random preliminary oral survey, the Muslim laymen were not able to provide an objective definition of what Taqwa is, a phenomenon which indicates their uncertain understanding of what Taqwa is. Considering the importance of Taqwa, it is therefore, imperative to analyze what traits that Taqwa entails as revealed in the Quran, so that the Muslims can have a better understanding of what traits need to be nurtured in order to achieve Taqwa.

It is acknowledged that Taqwa as a construct has been widely discussed in religious scholarly books for many centuries ( Al Haddad, 2010; Sheiko & Al Dayrani, 2015; Yassin, 2016). There are also current scholarly works on Taqwa and its connection to various academic disciplines. Among current scholarly works discussing Taqwa, to name a few, are such as Kamil, Sulaiman, Osman-Gani and Ahmad (2015), Bhatti, Alkahtani, Hassan and Sulaiman (2015), Sulaiman, Selladurai, Kamil and Mohsen (2015), Mohammad, Ibrahim, Salam, Jamil and Farzana (2015). Based on Quranic verses, Al Haddad (2007) defined Taqwa as comprising an array of three traits;

complete obedience to Allah's commands, continuous remembrance of Allah and perpetual gratefulness to Allah's mercy that He had rendered upon his creation. This definition although without an empirical study, suggests that the construct of Taqwa can be analyzed at the level of its traits. When analyzing a construct, what should be identified is the characteristics of the construct (Marican, 2006) which in the case of the current study is the traits of Taqwa.

Some previous religious-based studies used instrument such as the Religious Orientation Scale for the psychological measure to assess religious orientation (Kamaluddin, Nasir, Sulaiman, Khairudin, & Zamani, 2017). Nonetheless, such instrument that measures general orientation is not relevant to be used in this study due to the nature of the current study, which examined the orientation of a rather specific construct. By knowing the characteristics of Taqwa in the form of its traits, a believer will be able to gain understanding (knowledge) of the behaviours that they should engage in their effort to be a *muttaqun* (Al-Dimasyqi, 2000; 'Asyur, 2000; Al-Syanqitiy, 1995). In addition, the understanding of what traits Taqwa comprise will assist one to acquire *al-hikmah* or wisdom ('Asyur, 2000; Al-Syanqitiy, 1995). Using the method of *Usul Tafseer* or fundamental principles in Quranic interpretation including the exegesis knowledge, analyzing the traits of Taqwa can be considered as one of the branches of knowledge among *ahl al-Dikhr* or the scholars of the Quran (Al-Qurtubiy, 2003). Within the perspective of Islam, it is

important for Muslims to be *ahl al-Dikhr* in order to curb oneself from committing disobedience to Allah (Al-Muqbil, 2010).

Nonetheless, empirical studies presenting the model of Taqwa at the traits level can be claimed to be scarce or almost non-existent. If there is any, they might not be made available in the mainstream publications. The lack of empirical studies on Taqwa could be perhaps due to the abundant of discussion on Taqwa, nonetheless in a rather scattered manner. As such, the current study attempted to analyze the traits of Taqwa in the Quran in order to produce a more explicit model of Taqwa, which can be useful to all Muslims, particularly the non-scholars or laymen believers who make up the majority of the Muslims. As part of a preliminary research, the current study focused on the analysis of the elements of Taqwa in Surah Ali-'Imran.

## METHODS

The current study is an extension of a previous study analyzing the traits of Taqwa in Surah (Chapter) al-Baqara. Hence, the purposes of the present study were also to identify the traits of Taqwa in Surah Ali-'Imran as well as to analyze the emphasis on each trait. The study sought to answer the following research questions (RQ):

RQ 1: What are the traits of Taqwa mentioned in Surah Ali-'Imran?

RQ 2: What is the emphasis on each of the traits of Taqwa mentioned in Surah Ali-'Imran?

### Instrument and Sampling

The Holy Quran was the instrument used to obtain the data in this study. There are 114 surahs in the Holy Quran. Surah Ali-‘Imran is the third Surah and was selected as the sample Surah as it was the surah after Surah al-Baqara in the Holy Quran, which had been previously analyzed. Surah Ali-‘Imran has 200 verses. The sampling procedure employed the document review and elimination methods. Only verses that contain traits of Taqwa were selected for the study while other verses that did not contain any trait of Taqwa were eliminated.

### Data Collection

As in the previous study, in this study, the concept of Taqwa also literally focuses on its explicit conceptual (spiritual) and behavioural elements mentioned in the selected Surah. Hence, the definition of Taqwa as traits of righteousness or good deeds as commanded behavior by Allah S.W.T. served as the platform of the current study consistent with the definition of the analysis of Taqwa in the previous study of Surah al-Baqara. Based on the notion of *amar ma’aruf nahi munkar* of which *amar ma’aruf* refers to the commanded deeds (Dos) while *nahi munkar* refers to the prohibited deeds (Don’ts), the traits of Taqwa in the current study only included those within the *amar ma’aruf* context. In identifying the traits of Taqwa in Surah Ali-‘Imran, each selected verse was reviewed. For example, Surah Ali-‘Imran verse 133 was inferred to contain traits of Taqwa because

it reflected conceptual and behavioural elements as traits of righteousness and good deeds commanded by Allah:

*“O Mariam! Keep obedience to your Lord and humble yourself and bow down with those who bow.”*

Therefore verse 133 of Surah Ali-‘Imran was selected for the study. Upon the completion of the document review of the Surah, 38 verses of Surah Ali-‘Imran were selected as the sample verses for the current study.

### Data Analysis

The data in this study were analyzed using latent and manifest content analysis for Research Questions 1 and 2 respectively. “Content analysis is widely used in historical and communication research. It involves the analysis of the content of communication (documents) as the basis for inference,” (Basturkmen, 1999). Since the current study solely involved document analysis to make inferences, replicating the analysis of Taqwa in the previous study, content analysis was also used as the method of data analysis. According to Stemler (2001) and Sidek, (2010) content analysis can be a useful tool for examining trends and patterns in documents.

To answer Research Question 1, the traits of Taqwa were extracted from each selected verse. For example, in verse 133 of Surah Ali-‘Imran, 3 Taqwa traits were identified as shown as follows:

**Keep obedience to your Lord  
and humble yourself  
and bow down with those who bow**

To answer the first research question, latent content analysis was conducted. Latent content analysis was used to analyze the data in this study because the present study examined scripts. Latent analysis was conducted via thematic analysis by coding the extracted traits of Taqwa thematically in order to identify the category of traits of Taqwa. Thematic coding is a qualitative analytic method for “identifying, analyzing and reporting pattern (themes) within data. It minimally organizes and describes your data set in detail. However, it frequently goes further than this, and interprets various aspects of the research topic,” (Braun & Clarke 2006). Many past studies that attempted to categorize elements used thematic analysis (Ibrahim, 2009; Mihut, 2014; Perry, 2014; Raslie & Keong, 2017; Sidek, 2011).

To answer Research Question 2, manifest content analysis was conducted. The reiteration of each trait of Taqwa in each category was counted and converted into percentages. The categories of traits of Taqwa were ranked according to the percentages in an ascending manner to determine the emphasis of traits of Taqwa in the selected Surah. By following this technique, we can analyze the emphasis of the traits of Taqwa in the selected Surah.

**Validity Procedure**

The researcher finalized the list of traits of Taqwa against the selective *tafseer*

before submitting the list to the expert for validation. The same selected *tafseer* were used by the expert. The validity procedure was conducted by an expert who rated the selected verses and the inferred traits using a Likert scale indicating his agreement if the selected verses contain the traits of Taqwa. This expert compared the inferred traits against the interpretation of the selected verses in the selected source of *tafseer* or exegesis by Ibn Kathir (2000) and Al-Jalalyn (2013). As generally accepted by the scholars in the field of Quranic *tafseer*, the ways in which *tafseer* is presented by Al-Jalalyn and Ibn Kathir can be used as a valid reference. The validity index is 0.95. Discrepancies were solved via a discussion between the researchers and the rater to produce the final list of verses that contains traits of Taqwa.

**RESULTS**

The findings of the study are presented in the order of the research questions.

**Traits of Taqwa**

RQ 1: What are the traits of Taqwa mentioned in Surah Ali-‘Imran?

For a clearer representation, the analysis of traits of Taqwa was tabulated into four separate tables instead of presenting the findings in one lengthy table.

Tables 1 presents the traits of Taqwa elicited in Surah Ali-‘Imran (ToT<sup>Im</sup>), the second surah in the Quran, which traits are within the context of *amar ma’aruf* (the do’s). In this surah, 70 traits of Taqwa in total were elicited from 38 verses.

Table 1  
*Traits of Taqwa in Surah Ali- 'Imran*

No	Quranic verses	Traits of Takwa in Ali- 'Imran (ToT <sup>Im</sup> )	ToT <sup>Im</sup> per Verse
1	16	(ToT <sup>Im16</sup> 1) Those who say, "Our Lord indeed we have believed..."	1
2	17	(ToT <sup>Im17</sup> 1) The patient	5
		(ToT <sup>Im17</sup> 2) the truthful	
3	43	(ToT <sup>Im17</sup> 3) the obedient	3
		(ToT <sup>Im17</sup> 4) those who spend (benevolently)	
		(ToT <sup>Im17</sup> 5) those who ask forgiveness in the morning times	
4	57	(ToT <sup>Im43</sup> 1) keep to obedience to your Lord	2
		(ToT <sup>Im43</sup> 2) humble yourself	
5	64	(ToT <sup>Im43</sup> 2) bow down with those who bow	1
		(ToT <sup>Im57</sup> 1) ..those who believed	
6	68	(ToT <sup>Im57</sup> 2)...and did righteous deed.	1
		(ToT <sup>Im64</sup> 1) Say, "...we will not worship except Allah and not associate anything with him and not take one another as lords instead of Allah."	
7	76	(ToT <sup>Im68</sup> 1) Indeed the most worthy of Abraham among the people are those who followed him and this prophet, and those who believe in his message	3
		(ToT <sup>Im76</sup> 3) whoever fulfills his promise	
8	89	(ToT <sup>Im76</sup> 4) guards (against evil)	1
		(ToT <sup>Im76</sup> 5) those who guard (against evil)	
9	101	(ToT <sup>Im89</sup> 1) Except those who repent after that (wrongdoing) and amend..."	1
		(ToT <sup>Im101</sup> 1) whoever holds fast to Allah	
10	102	(ToT <sup>Im102</sup> 1) ...be careful of (your duty to) Allah with the care which is due to him..."	1
		(ToT <sup>Im103</sup> 1) And hold fast by the covenant of all together	
11	103	(ToT <sup>Im103</sup> 2) remember the favour of Allah on you	2
		(ToT <sup>Im104</sup> 1) And from among you there should be a party who invite to good	
12	104	(ToT <sup>Im104</sup> 2) enjoin what is right	3
		(ToT <sup>Im104</sup> 3) forbid the wrong	
13	113	(ToT <sup>Im113</sup> 1) they recite Allah's communications in the night time	2
		(ToT <sup>Im113</sup> 2) they adore (Him)	
14	114	(ToT <sup>Im114</sup> 1) They believe in Allah and the last day	3
		(ToT <sup>Im114</sup> 2) they enjoin what is right and forbid the wrong	
15	115	(ToT <sup>Im114</sup> 3) they strive with one another in hastening to good deeds	1
		(ToT <sup>Im115</sup> 1) those who guard against evil	
16	122	(ToT <sup>Im122</sup> 1) in Allah should the believer trust	1
		(ToT <sup>Im123</sup> 1) be careful of (your duty) to Allah	
17	123	(ToT <sup>Im123</sup> 2) that you may give thanks	2
		(ToT <sup>Im130</sup> 1) and be careful of (your duty) Allah	
18	130	(ToT <sup>Im131</sup> 1) guard yourself against the fire	1
19	131	(ToT <sup>Im132</sup> 1) And obey Allah and the apostle	1
20	132	(ToT <sup>Im133</sup> 1) hasten to forgiveness from your Lord	2
		(ToT <sup>Im133</sup> 2) those who guard (against evil)	

Table 1 (continue)

No	Quranic verses	Traits of Takwa in Ali-‘Imran (ToT <sup>Im</sup> )	ToT <sup>Im</sup> per Verse
21	133	(ToT <sup>Im133</sup> 1) hasten to forgiveness from your Lord (ToT <sup>Im133</sup> 2) those who guard (against evil)	2
22	134	(ToT <sup>Im134</sup> 1) Those who spend (benevolently) in ease as well as in straightness (ToT <sup>Im134</sup> 2) those who restrain (their) anger (ToT <sup>Im134</sup> 3) pardon men (ToT <sup>Im134</sup> 4) Allah loves the doers of good	4
23	135	(ToT <sup>Im135</sup> 1) those who when they commit an indecency or do injustice to their souls remember Allah (ToT <sup>Im135</sup> 2) ask forgiveness for their faults	2
24	137	(ToT <sup>Im137</sup> 1) therefore travel in the earth and see what was the end of the rejecters	1
25	138	(ToT <sup>Im138</sup> 1) those who guard (against evil)	1
26	142	(ToT <sup>Im142</sup> 1) those who strive hard from among you (ToT <sup>Im142</sup> 2) the patient	2
27	144	(ToT <sup>Im144</sup> 1) Allah will reward the grateful	1
28	145	(ToT <sup>Im145</sup> 1) Allah will reward the grateful (ToT <sup>Im146</sup> 1) they did not become weak-hearted on account of what befell them in Allah's way	1
29	146	(ToT <sup>Im146</sup> 2) nor did they weaken (ToT <sup>Im146</sup> 3) nor did they abase themselves (ToT <sup>Im146</sup> 4) the patient	4
30	148	(ToT <sup>Im148</sup> 1) those who do good (to others)	1
31	159	(ToT <sup>Im159</sup> 1) then place your trust in Allah; surely Allah love those who trust	1
32	160	(ToT <sup>Im160</sup> 1) And on Allah should the believers rely	1
33	172	(ToT <sup>Im172</sup> 1) Those who responded to the call of Allah and apostle (ToT <sup>Im172</sup> 2) those among them who do good (to others) (ToT <sup>Im172</sup> 3) guard (against evil)	3
34	179	(ToT <sup>Im179</sup> 1) believe in Allah and his apostles (ToT <sup>Im179</sup> 2) if you believe (ToT <sup>Im179</sup> 3) and guard against evil	3
35	186	(ToT <sup>Im186</sup> 1) if you are patient (ToT <sup>Im186</sup> 2) guard (against evil)	2
36	198	(ToT <sup>Im198</sup> 1) those who are careful of (their duty to) their Lord	1
37	199	(ToT <sup>Im199</sup> 1) those who believe in Allah and what has been revealed to you and in that which has been revealed to them (ToT <sup>Im199</sup> 1) being lowly before Allah	2
38	200	(ToT <sup>Im200</sup> 1) be patient (ToT <sup>Im200</sup> 2) excel in patience (ToT <sup>Im200</sup> 3) remain steadfast (ToT <sup>Im200</sup> 4) be careful of (your duty to) Allah	4
Total verses = 38		Total ToT <sup>Im</sup> = 70	

Key: ToT<sup>Im</sup> = Traits of Taqwa in Surah Ali-‘Imran

**Emphasis on Traits of Taqwa**

RQ 2: What is the emphasis on each of the traits of Taqwa mentioned in Surah Ali-‘Imran?

The traits of Taqwa extracted in the selected verses were analyzed thematically. The analysis generated 21 frequency-based sequential categories of traits of Taqwa that are presented in Table 2.

Table 2  
*A consolidated frequency analyses of the emphasis of Traits of Taqwa (TOT<sup>Tw</sup>)*

Traits of Taqwa	Frequency of Reiteration (f)
Believe in the Oneness of Allah (Tawheed)	12
Performing solah	2
Zakat/Charity/Alms	2
Do good to others	2
Do good deeds	12
Calling to Allah’s Path/Da’awah	4
Repentance (Tawbah)	5
Controlling/ suppressing anger	1
Patience	8
Forgiving	1
Honesty/Integrity	1
Obedience	4
Steadfastness/Istiqomah	3
Humbleness	2
Keeping promise	1
Consciousness of Allah	5
Reliance on Allah	4
Gratefulness	5
Praising Allah/Tasbeeh	1
Fear of Allah’s Punishment	1
Travel to Learn	1
Total cumulative frequency	77
21 TOTs	

Key: TOT=Traits of Taqwa

The frequency for each trait presented in Table 2 was statistically processed into percentages as indicated in Table 3.

Table 3  
*Percentage of emphasis of Traits of Taqwa (TOT<sup>Tw</sup>)*

Traits of Taqwa	Reiteration Per Selected Verses (%)
Believe in the Oneness of Allah (Tawheed)	15.6
Do good deeds	15.6
Patience	10.4
Repentance (Tawbah)	6.5
Consciousness of Allah	6.5
Gratefulness	6.5
Obedience	5.2
Reliance on Allah	5.2
Calling to Allah’s Path/Da’awah	5.2
Steadfastness/Istiqomah	3.9
Humbleness	2.6
Performing solah	2.6
Zakat/Charity/Alms	2.6
Do good to others	2.6
Controlling/ suppressing anger	1.3
Controlling/ suppressing anger	1.3
Forgiving	1.3
Honesty /Integrity	1.3
Keeping promise	1.3
Praising Allah/Tasbeeh	1.3
Fear of Allah’s Punishment	1.3
Travel to Learn	1.3
Total	100

%=Percentage

Table 3 shows the percentage of each TOT<sup>Tw</sup> mentioned in the selected verses in Surah Ali-‘Imran arranged according to the sequence of the traits being mentioned in the Surah Ali-‘Imran from the highest to the lowest percentage. The results tabulated in

Table 3 were used to generate a sequential emphasis-based analysis of the traits of Taqwa in Surah Ali-‘Imran as shown in Table 4.

Table 4 presents 7 ranks of reiteration of traits of Taqwa which denotes the emphasis for each ToT<sup>(w)</sup>. Tawheed and doing good deeds are reiterated most frequently, followed by Patience being second in rank. Repentance or Tawbah, Consciousness of Allah and Gratefulness are the third most reiterated ToT<sup>(w)</sup>. Fourth in the reiteration rank are Calling to Allah’s

Path (Da’awah, Obedience and Reliance on Allah. Steadfast/Istiqomah comes fifth in rank while Performing Solah, Do Good to Others, Zakat/Charity/Alms and Humbleness are 6<sup>th</sup> in rank. The last rank which is rank 7<sup>th</sup> comprises of the ToT<sup>(w)</sup> of Controlling/Suppressing Anger, Forgiving, Honesty, Keeping Promise, Praising Allah/Tasbeeh, Fear of Allah’s Punishment and Travel to Learn. The trait Travel to Learn denotes the importance of mankind learning from adverse history so as they might learn from it and improve themselves.

Table 4  
*A sequential emphasis-based analysis of Traits of Taqwa (ToT<sup>m</sup>)*

Traits of Taqwa	Rank of Reiteration
Believe in the Oneness of Allah (Tawheed) & Do good deeds	1
Patience	2
Repentance (Tawbah) & Consciousness of Allah & Gratefulness	3
Calling to Allah’s Path (Da’awah) & Obedience & Reliance on Allah	4
Steadfast/Istiqomah	5
Performing Solah & Do Good to Others & Zakat/Charity/Alms & Humbleness	6
Controlling/ Suppressing Anger, Forgiving, Honesty, Keeping promise, Praising Allah/ Tasbeeh, Fear of Allah’s Punishment & Travel to Learn	7

**DISCUSSION**

The findings show that 38 verses out of 200 verses comprise traits of Taqwa. There are 21 categories of ToT<sup>(w)</sup>s mentioned in the selected verses in Surah Ali-‘Imran, namely Believe in the Oneness of Allah (Tawheed), Do good deeds, Patience, Repentance (Tawbah), Consciousness of Allah, Gratefulness, Repentance (Tawbah), Consciousness of Allah, Gratefulness,

Steadfast/Istiqomah, Performing Solah, Do Good to Others & Zakat/Charity/Alms, Humbleness, Controlling/ Suppressing Anger, Forgiving, Honesty, Keeping promise, Praising Allah/Tasbeeh, Fear of Allah’s Punishment and Travel to Learn.

In Surah Ali-‘Imran, the term Taqwa is first mentioned in verse 15 as reflected in the word ‘ittaqau” translated as “fear” as in the approximation of translation of the verse as follows:

*Say, "Shall I inform you of (something) better than that? For those who fear Allah will be gardens in the presence of their Lord beneath which rivers flow, wherein they abide eternally, and purified spouses and approval from Allah. And Allah is seeing of (His) servants".*

Upon the mentioning of Taqwa, the traits of Taqwa began to be listed beginning from verse 16 and continued to be mentioned in the 38 selected verses. It is pivotal to be stated that when analyzing the Quranic verses, linear pattern or literal classification is not possible to be determined objectively because the Quran is unique in its own way in terms of its arrangement and presentation. Hence, such a condition becomes a caveat when determining the traits of Taqwa and its categorization as well as ranking of reiteration in the current study. Therefore, what can be laid out is what is mentioned either literally or by *tafseer*. Based on the analysis in this study, Tawheed is the first trait of Taqwa mentioned in verse 16 and later followed by other traits of Taqwa in the selected verses, giving it a role as a condition for Taqwa. Having the other traits without having Tawheed does not translate to Taqwa as in the case on non-believers regardless of them implementing the other ToTs. To enlighten, a non-believer who practices all ToTs, but with the absence of Tawheed is not considered as a person of Taqwa.

In terms of emphasis on the traits of Taqwa, the findings in this study show that Tawheed and Doing Good Deeds are the most frequently mentioned ToTs. Tawheed is a very specific trait in that it denotes one's belief in the Oneness of Allah while doing good deeds is a trait that is rather general to encompass anything that is considered good. Such equal emphasis can be interpreted to mean that a person of Taqwa should be the one who generally does good deeds in various ways and forms. Doing Good Deeds as a bracket term may suggest that Allah does not limit good deeds as only the ones He mentions in the Quran, but it encompasses any deed that can be considered as good deeds. Such a provision is in alignment with Allah's trait as Ar-Rahman or the Most Merciful. Nonetheless, since this study is pertaining Taqwa, the general mentioning of good deeds can be connected to Allah's trait as Ar-Rahim or the Especially Merciful to believers who satisfy the condition of having Tawheed.

In the selected Surah, the ToT of Patience comes second in the reiteration rank after Tawheed and Doing Good Deeds traits. Hence, patience comes third because being patience in abstaining from doing *munkar* to please Allah and from doing what one desires that displeases Allah (Ibn Kathir, 2000), are considered as part of doing good deeds. Thus, the mentioning of patience as a ToT elucidates what Doing Good Deeds ToT comprises. Doing Good Deeds ToT is further enlightened in sequence by the emphasis on Repentance (Tawbah), Consciousness of Allah and Gratefulness,

which ToTs come third in the reiteration rank. These ToTs are followed by Calling to Allah's Path (Da'awah), Obedience and Reliance on Allah in the fourth reiteration rank, Steadfast/Istiqomah in the fifth rank, Performing Solah, Do Good to Others, Zakat/Charity/Alms and Humbleness in the sixth rank and the last rank comprises Controlling/Suppressing Anger, Forgiving, Honesty, Keeping promise, Praising Allah/Tasbeeh, Fear of Allah's Punishment and Travel to Learn. In general, it is not literally about the rank of reiteration because only Allah knows why the pattern of reiteration of the ToTs is as such. More importantly, it is about the fact that each trait is mentioned as an advice and clarification in the Quran, which in this case specifically in Surah Ali-'Imran, of what a Muslim needs to be in order to achieve the level of a *Muttaqin* (a person of Taqwa).

## CONCLUSION

The purposes of the study were to identify the traits of Taqwa and to analyze the emphasis of the traits of Taqwa as presented in Surah Ali-'Imran. The findings of this study show that there are 21 traits of Taqwa mentioned in the selected Surah with each trait given a different rank of reiteration. By making the ToTs explicit in a systematic way, such presentation might provide the Muslims, especially the laymen, with a clearer picture of what traits of Taqwa entails in Surah Ali-'Imran. Such knowledge might provide the Muslims a guideline of what traits they should nurture and have in

order to reach the level of a person of Taqwa and not merely a believer at the level of having Tawheed.

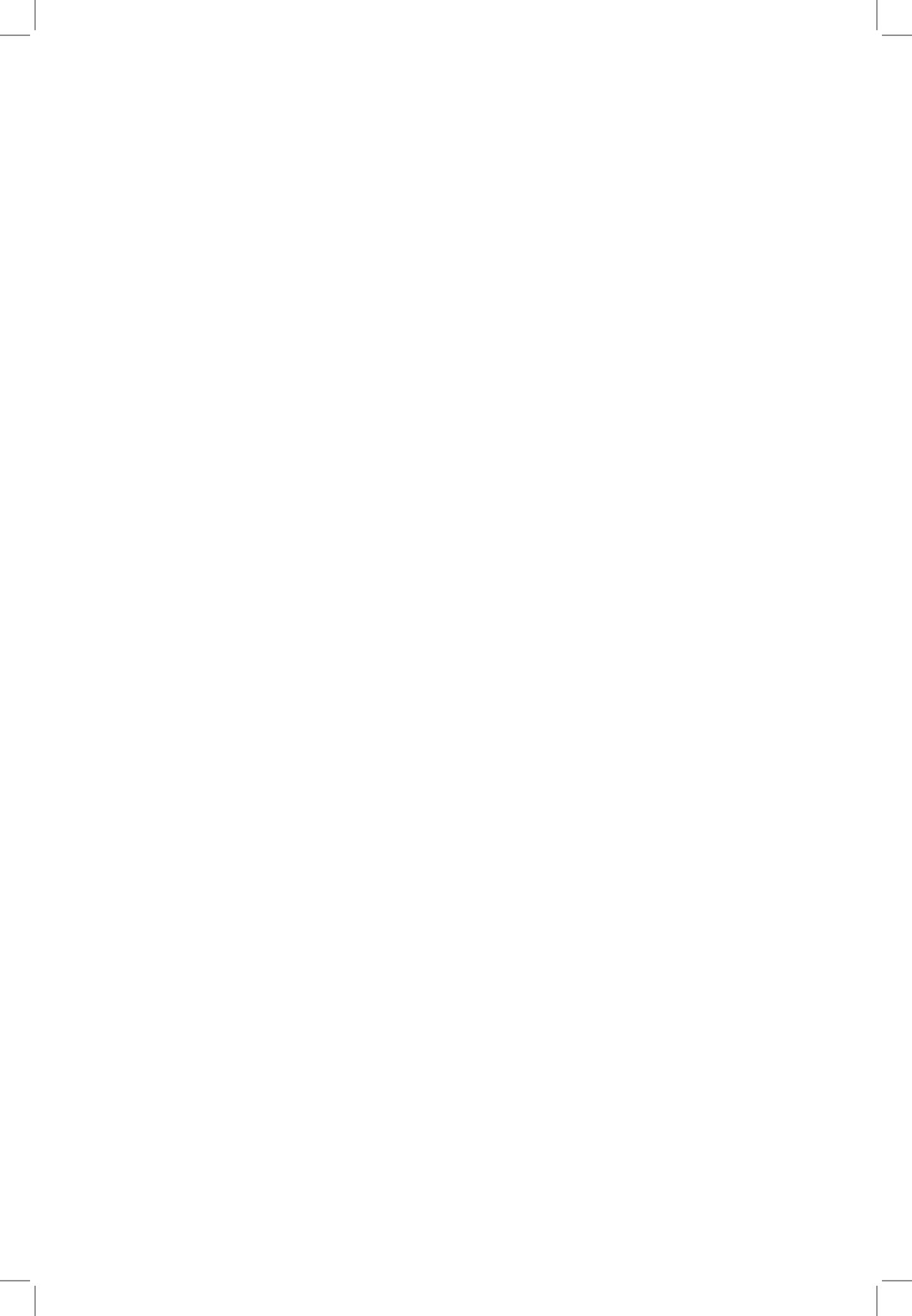
Although the findings of the current study are limited to one Surah, this paper can be a source of reference for understanding of the traits of Taqwa at the initial fundamental level of Taqwa traits and emphasis. The findings of the current study are a small part of a bigger framework upon the completion of future similar analyses for the entire Surahs in the Quran.

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## **Implementation of Islamic Values in Houses around Darul Istiqamah Islamic Boarding School in Maccopa, Maros**

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### **ABSTRACT**

Data in 2010 showed that the number of Moslems reached 87.18% of the entire population of Indonesia, meaning that the development of houses with the Islamic environment should have been considered. Houses with Islamic environment often found near the Islamic institution, such as Islamic Boarding school. The purpose of this study is to recognize the implementation of Islamic values in houses around Darul Istiqamah Islamic Boarding School in Maccopa, Maros. The study examined physical and non-physical aspects of houses around Islamic boarding school. The results revealed that Islamic values adhered by the residents among Darul Istiqamah Islamic Boarding School area, manifested physically in the houses' zoning system and non-physically through the daily behavior of the residents. The presence of Islamic boarding school could lead the local Moslem community to the implementation of Islamic values, both in physical and non-physical aspects.

*Keywords:* Hadith, houses, Islamic Boarding School, Islamic values, *Qur'an*

### **INTRODUCTION**

A house is one of the works of architecture which becomes part of society's culture and cannot stand independently because it is influenced by ideology, politics, economy and society's culture thereby affect the types, quality and the products of architectural work (Nurjayanti, Nuryanti, Ronald, & Kusumawanto, 2012). General architecture theories concerning the house, such as, according to Lang (as cited in Nurjayanti et al., 2012), stated that the shape of the house pattern was influenced by: 1) number of

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occupants, 2) activities of the occupants, 3) income level of occupants, 4) home status, 5) the value of the philosophy that adopted. This value of philosophy adopted will color the pattern and expression of the house and its environment.

House is more than just a physical structure or residential that provides a place to stay and protection from natural aspects such as weather. House is a reflection of its owner and the character of every person who lives in the house as well as pivotal part of their lifestyle (Othman, 2016). An individual or a family constantly seeks a good balance between socialization and privacy at home at different times. Too much privacy can lead to social isolation, while too little can lead to undesirable feelings of being 'crowded' at home (Altman in Othman, 2016). Zones of the house such as guest and living rooms are important social spaces for ensuring continuity in relationships between home owners or dwellers and members of their social network, such as friends, relatives and neighbors (Després and Sixsmith in Othman, 2016). Home residents are able to control their social activities and filter the types of guests that are invited inside their domestic sphere. At the same time, the home environment allows these guests to further understand the home owners'/dwellers' private lives to a certain extent through the design, arrangement and utilization of the dwelling's interior spaces (non-verbal identifications) (Sixsmith in Othman, 2016).

Different communities represent different types of culture, environment, socio-economic, religious beliefs and

environmental behavior. Those elements influence the dwelling design and it expresses the cultural identity of the community (Gharaei & Rafieian, and Rapoport in Razali & Talib, 2013). Within the building process like in the developing country such as Indonesia, the development of built environment in the form of resident houses will always be followed by unsustainable building due to the strong currents of modernization, scraping the Islamic values that should have merged with society's life. Oftentimes, the house development only considers the architectural aspect, particularly by the developers of real estate. There are several real estate developers who offer Islamic residence concept, but are not genuinely based on *Qur'an* and hadith in its realization whereas *Qur'an* and hadith can be a source of reference in development. A house defined as a place to form excellent moral and behavior oriented to the happiness in the world and life after death.

According to data, the number of Moslems reached 87.18% of the entire population of Indonesia (Indonesia Central Bureau of Statistics, 2010). It shows that development of houses with Islamic environment should have been considered. Islamic values are practiced as a guideline of Islamic life based on *Qur'an* and hadith. The Islamic values will form in the daily life and expressed from the behavior of the Moslems thereby influence the formation of habitation (Mustafa, Wikantari, Harisah, & Muftiradja, 2015). Physical embodiment of Islamic architecture can be obtained with a harmonious blend between elements

of philosophical (nonphysical element) and symbolic elements (physic element) in accordance with the principles of Islam (Ahmad Noe'man in Azizah & Putri, 2013). In Islamic Architecture, the form of the built environment is a product architecture that is composed of two main components, namely the element of physical (tangible) and non-physical (intangible). Physical element is divided into 3 (three) main elements (Hoag in Azizah & Putri, 2013), namely: (1) permanent physical elements (for example, walls, floors, roofs, ceilings, windows), (2) semi-permanent physical elements (for example, tables, chairs, wardrobes, paintings, plants) and (3) non-permanent physical elements (for example, sound, light, wind, temperature, steam, air, humidity). Therefore, the physical aspect is shown as a spatial system of the

house (Nurjayanti et al., 2012). According to Qomarun in Azizah and Putri (2013) for the non-physical elements including factors related to the intentions, behavior and user activity to realize the salvation of the world which is the afterlife. So the non physical elements are always associated with elements that are transcendental, not rational and reflected by the prosperous family which is the resident of the house. Figure 1 contains the spatial configuration of an Islamically compliant house that is attributed the Islamic value in principle as proposed by the *Quran* and hadith (Altman & Chemers; Altman et al. in Razali & Talib, 2013).

Houses with Islamic environment often found near the Islamic institution, such as Islamic Boarding school. Islamic boarding school as an educational institution

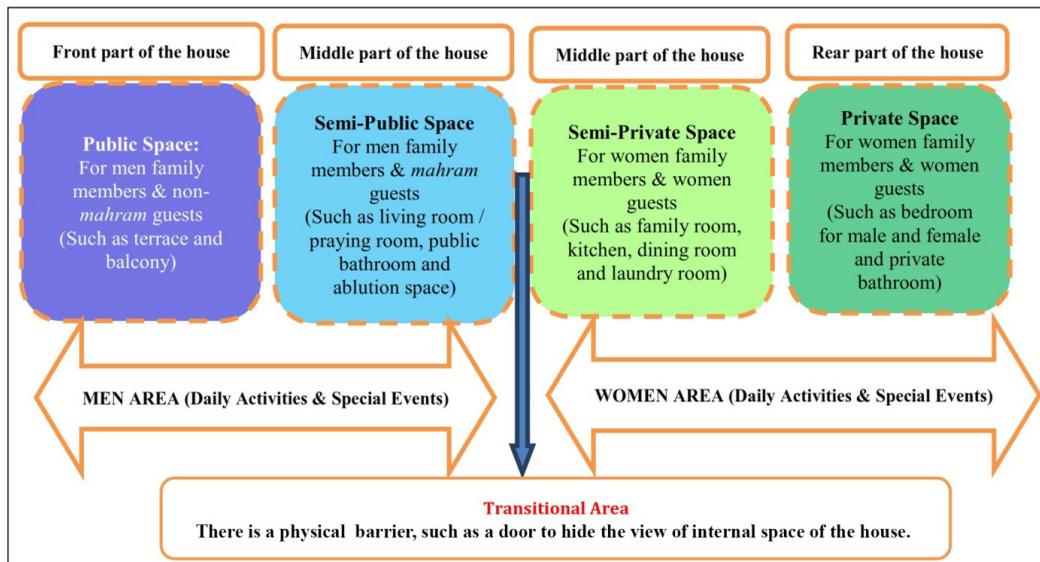


Figure 1. Spatial configuration of an Islamically compliant house that is attributed the Islamic value in principle as proposed by the Quran and Hadith (Altman & Chemers, Altman et al., and Mortada in Razali & Talib, 2013)

has its own characteristic. Education in Islamic boarding school involves Islamic education and local community development (Thahir, 2014). The local community development in Islamic Boarding school could be accomplished regarding the potency and influence of Islamic boarding school extensively. Therefore, Islamic boarding school is great in developing and establishing the community (Zumaroh, 2015). Darul Istiqamah Islamic Boarding School located in Maros, South Sulawesi, Indonesia, organized by Kyai Haji Ahmad Marzuki Hasan as the founder and leader of the Islamic boarding school until 1983. First time since it was built, the area was 0,5 hectares and only had seven students but since then its presence affect the community around it. Darul Istiqamah Islamic Boarding School not only concern on building a

school but also initiates residential areas which someday will be the role model of civilization (As, 2015). Hence, this study aims to recognize the implementation of Islamic values in houses around Darul Istiqamah Islamic Boarding School in Maccopa, Maros.

## MATERIALS AND METHODS

This is a qualitative study conducted with multi-methods such as in-depth interviews, participant observation and focus group that refers to the *Qur'an* and hadith about Islamic house. This study conducted in Maccopa, a district in Maros Regency which is located in South Sulawesi Province of Indonesia, as shown in Figure 2. This paper specifically discusses about Darul Istiqamah Islamic Boarding School area and the houses near the Islamic boarding school.



Figure 2. The area of the study

In this study the sample size determined by Slovin formula with 95% of level confidence (Tejada & Punzalan, 2012). The population size is 320 houses. Slovin formula is given below:

$$n = \frac{320}{(1+320(0,05)^2)} = 178 \quad (1)$$

The sampling method used in this study was simple random sampling (Singh & Masuku, 2014), that gave the same chance for the entire population to be assigned as sample of study, which was then called 'participant'. Each house would be given a number and then determined using a lottery to decide which 178 houses would be the sample of the study. The owner of the house already selected would be interviewed, mainly represented by the head of the family for each houses. The interview themes divided into two sessions regarding non-physical and physical aspect of Islamic values. The non-physical aspect determined by the behavior of the residents of the house, while the physical aspect determined by the building component, interior and spatial system of the house. The research also used the participant observation while interviewing. After the in-depth interview and participant observation, a focus group conducted to complete data collection and as an adjunct. This method is called triangulation (Dilshad & Latif, 2013). Focus groups bring together several participants to discuss the topic about Islamic house based on *Qur'an* and hadith. Hence, collected data would be shown in tables. Further

results expected from this study are whether the houses or residents around the Islamic boarding school implement the Islamic values on their daily activities and houses.

## RESULTS AND DISCUSSION

Data collection was conducted on March 2017 in the houses around Darul Istiqamah Islamic Boarding School area. Before conducting the interview, the approval from the samples has been asked to give proper data and to answer straightforward. The interview-based questionnaire was distributed in the first phases to assess their socio-demographic respectively, shown in Table 1. Nearly two-third of participants aged 25 years old to 35 years old and the highest rate with total 48%. The majority of the participants dominantly worked as teacher staff in the Islamic boarding school with the amount of 53%. There are also participants who worked as civil servant and entrepreneur with the percentage of 22%

Table 1  
*Sociodemographic distribution of participants*

Socio-demographic data	%	<i>n</i>
Age		
25 – 35	48%	85
36 – 45	41%	73
46 – 55	11%	20
Occupation		
Teacher staff	53%	95
Civil servant	22%	40
Entrepreneur	11%	20
Others	14%	23
Educational degree		
Senior High School	62%	110
Bachelor Degree	32%	57
Master Degree	6%	11

and 11% respectively. However, in terms of educational degree, 62% of participants went to school until senior high school level, followed by bachelor degree with 32% and only 6% has the master degree.

The spatial configuration of Islamic house in Figure 1 are manifested in a form of physical and nonphysical aspects of

the house in this study, as seen in Figure 3. Subsequently, the results can be seen in Table 2, which observing nonphysical aspects of Islamic values. This study shows that almost all male participants do obligatory prayer or five times prayer in the mosque while female prayed in their home with as much as 95%. This result

Table 2  
The distribution of participants regarding implementation of Islamic values based on non-physical aspects

Non-Physical Aspect		%	n
Obligatory prayer	Males pray at the mosque and females pray at home	95%	169
	Males and females pray at home	5%	9
	Total	100%	178
Reading <i>Qur'an</i>	Everyday	85%	151
	Once in a week	10%	18
	Once in a month	5%	9
	Total	100%	178
Cleaning the house	Everyday	35%	62
	Once in a week	45%	80
	Once in a month	20%	36
	Total	100%	178
Place for receiving guests	In terrace	50%	89
	In the living room after recognizable	40%	71
	Directly in the living room	10%	18
	Total	100%	178

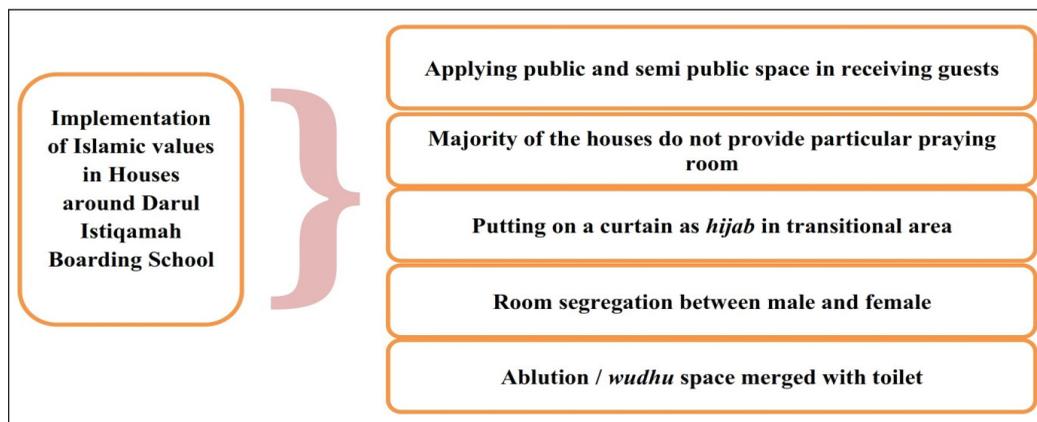


Figure 3. Typical diagram as a result of the study

was consistent with a study which reported that most of the participants did obligatory prayer in the mosque for male while female did the obligatory prayer at home (Mustafa, Yudono, Wiksntari, & Harisah, 2016). It is emphasized by this hadith reported by Abdullah bin Mas'ud in which The Prophet said:

*“The prayer of a woman in (a middle room of) her house is better than her prayer in her outer room, and her prayer in her inner room is better than her prayer in (a middle room of) her house)”* Hadith number 570 (Abi Dawud, 2008).

There are nine mosques in the area of Darul Istiqamah Islamic Boarding School. A lot of mosques which are located near the houses may give the big influence towards male to do obligatory prayer in the mosque. About reading *Qur'an* it is mentioned that one of the parents' obligation was teaching *Qur'an* to their children (Saeidi, Ajilian, Farhangi, & Khodaei, 2014). All Muslims house residents obliged to have obedience towards Islam by implementing Islamic values through *Qur'an* and hadith teaching. This is reflected by result where the collection of *Qur'an* in every house and habits of the resident to read *Qur'an* every day is as much as 85%. In Nigeria, there are some houses that have a terrace in front of the yard used as a place to study *Qur'an* for the children (Yahya, 2012). Omer (2014) also suggested that upon building a house we must provide a place to do prayer

which functioned as a place to do *tadarus Qur'an* with the family as well. In addition, information obtained from the interview revealed that the community around the Islamic boarding school routinely held *Qur'an* recital four times a week, shows that embodiment of Islamic values in their everyday life. In addition, *Qur'an* was the source of God's merit and grace. The eminence of reading *Qur'an* was clearly portrayed in this hadith narrated by Muhammad bin Ka'b Al-Qurazi:

*“I heard 'Abdullah bin Mas'ud saying: 'The Messenger of Allah said: "[Whoever recites a letter] from Allah's Book, then he receives the reward from it, and the reward of ten the like of it. I do not say that Alif Lam Mim is a letter, but Alif is a letter, Lam is a letter and Mim is a letter”* Hadith number 2910 (at-Tirmidhi, 2007b).

Another form of implementation of Islamic values in nonphysical aspect of the house is reflected by the house cleanliness. 80 participants answered that they cleaned their house once a week, as much as 45%. Cleanliness of the house affect the entire part of the house environment and in the long term, would affect the health of the resident (Yusof, 2011). The house should always be kept clean or in a state of purity for the purpose of performing daily and religious activity. The suggestion to always keep the cleanliness was also stressed in hadith narrated by Salih bin Abi Hassan:

*“I heard Saeed bin Musayyab saying: ‘Indeed Allah is Tayyib (good) and he loves Tayyib (what is good), and He is Nazif (clean) and He loves cleanliness...’”* Hadith number 2799 (at-Tirmidhi, 2007a).

Regarding place for receiving guests, 50% of the participant received guests in the terrace followed by 40% of participants receiving guests inside the house or in the living room after recognizable. A study performed by Mustafa et al. (2016) showed that there was a place called *bale-bale* at the bottom of the stage house that often used to receive guests, particularly *non-mahram*. Meanwhile, it might be better to ensure the privacy of residents. *Qur’an* verse mentioned that:

*“O you who believe! Enter not houses other than your own, until you have asked permission and greeted those in them; that is better for you, in order that you may remember; And if you find no one therein, still, enter not until permission has been given to you. And if you are asked to go back, go back, for it is purer for you. And Allah is All-Knower of what you do”*(*Qur’an* 24: 27-28).

Furthermore, Islam taught the Muslims how to behave ethically during a visit. Moslem prohibited facing the door of the house because there might be something that is not supposed to be seen. Whether the household which is not in a proper

condition or the owner, as they might be inappropriate in some ways. Waiting in front of the door, most likely revealing the ugliness and nakedness and it is forbidden in Islam. Hence, the Prophet Muhammad commands not to approach the house from the front door, but through the side door, left or right, while asking for permission politely (Yahya, 2012). Moreover, receiving guests appropriately is the characteristic of Islam believers. As said by Yahya (2012), one of the Islam-based principles guiding the construction of a residence in urban Kano is guests are a blessing, therefore being always prepared to warmly receive them is a religious obligation. This hadith also emphasizes the importance of guest: Narrated by Abu Huraira, The Prophet said:

*“Whoever believes in Allah and the Last Day, should not hurt his neighbor and whoever believes in Allah and the Last Day, should serve his guest generously and whoever believes in Allah and the Last Day, should speak what is good or keep silent”* Hadith number 163 (al-Bukhari, 1994b).

The result regarding the physical aspects observed from the building components, interior and spatial system distributed in Table 3. According to Table 3, there are no participants who displayed statue in their house. Instead, 62% of participants displayed Islamic ornament or calligraphy in their houses. This result was consistent with a study which found some residents who displayed non-living ornaments in

Table 3  
*The distribution of participants regarding implementation of Islamic values based on physical aspects*

Physical aspect		%	n
House ornaments	Family portrait	38%	68
	Islamic ornament or calligraphy	62%	110
	Statue	0%	0
	Total	100%	178
Presence of particular praying room	Yes	10%	18
	No	90%	160
	Total	100%	178
Orientation of the toilet	Facing <i>qibla</i>	30%	53
	Opposite the direction of <i>qibla</i>	30%	53
	Not both	40%	72
	Total	100%	178
Room segregation between male and female	Yes	100%	178
	No	0%	0
	Total	100%	178
<i>Hijab</i> concept	Furniture or plants	20%	36
	Doors, curtains, and windows	80%	142
	Total	100%	178
Ablution/ <i>wudhu</i> space	Merged with toilet	90%	160
	Separate from toilet	10%	18
	Total	100%	178

their house (Nurjayanti et al., 2012). The result supported with this hadith where Abu Huraira reported The Prophet as saying:

*“Angels do not enter the house in which there are portrayals or pictures”* Hadith number 156 (Muslim, 2000).

From the hadith, it explained that there should not be any statue in the house because it can keep the blessing away from Allah. However, 38% of participants displayed family portrait in their houses. Displaying pictures of natural landscape is recommended as it shows the praise

to God for His beautiful creation and Islamic ornament or calligraphy could lead to a religious atmosphere. Simple and minimalistic design approaches rather than excessive ornamentations are suggested for the decoration of the house as it is in line with the Islamic modesty (Othman, 2016). Meanwhile, the results of this study indicated that almost all of participants do not have a particular praying room in their house as much as 90%, probably due to the thought that male does prayer in the mosque. In the study performed in Australia by Othman (2016), it was found that several houses did not have a particular

prayer room in their house due to the lack of available space. The house was not very big so providing a particular praying room seemed to be hard and additionally, the *qibla* direction that was required for prayer could already be determined by mobile applications. Regarding the obligation for men to pray in the mosque, different rules applied for women. It is not an obligation for women to pray in the mosque, as said in this hadith reported by Ibn ‘Umar:

*“Do not prevent your women from (going to) the Masjid - but their houses are better for them”* Hadith number 567 (Abi Dawud, 2008).

Therefore, the presence of praying room in the house is still necessary. Hadith revealed that it is better to do *sunnah* prayer in the house rather than in the mosque. Prophet Muhammad’s habit to do *sunnah* prayers at home shown in this hadith:

*“So you people, offer this prayer at your homes, for the best prayer of a person is the one which he offers at home, except the compulsory (congregational) prayer”* Hadith number 140 (al-Bukhari, 1994b).

The merits were even multiplied thereby it is necessary to have particular praying room in the house as a place for worship activities. Supriyanta and Malik (2015) explored Islamic values in spatial function of Javanese traditional architecture reported that the Javanese had a nearly similar room with the praying room called *Sentong Tengah*, used for spiritual activities.

On the other side, the Muslim community has not been aware of the importance of toilet orientation. Results found that both of the results in which participant have toilet oriented to *qibla* and opposite *qibla* direction has the same result, as much as 30%. Another study conducted in Barombong also found a similar result in this study, which reported 30% of the coastal communities of Barombong still unaware about toilet orientation (Mustafa et al, 2016). The importance of toilet orientation could be seen in the hadith that Abu Aiyub Al-Ansari reported:

*Allah’s Messenger said, “If anyone of you goes to an open space for answering the call of nature he should neither face nor turn his back towards the Qibla; he should either face the east or the west.”* Hadith number 10 (al-Bukhari, 1994a).

The room segregation in a form of bedroom separation between males and females of the family member in the house is crucial to maintain privacy among residents. In this study, all participants gave the same answer that there is a bedroom separation between males and females and it is consistent with a study by Mustafa et al. (2016) which showed that the majority of participants separated the bedroom between male and female. In Javanese traditional architecture there is also the separation of the bedrooms for men called *Gandok Kiwo* and bedrooms for women called *Gandok Tengen* (Supriyanta & Malik,

2015). Another study in Kano, Nigeria has nearly the similarities to this study, but for female, they are sleeping in their mother's room until they are married (Yahya, 2012). Similar practice found in Malay dwelling house which highlight the need to separate bedrooms in order to prevent unethical behavior occur in the family (Razali & Talib, 2013) The result shows that bedroom separation or segregation between male and female bedrooms are conducted in the houses around Islamic boarding school, which is as much as 100% or the entire community did the separation. This is in line with the hadith narrated by Abdullah ibn Amr ibn al-'As as Prophet said:

*“Command your children to pray when they reach the age of seven, discipline them for it when they reach the age of ten, and (at that age) separate between them in their beds”* Hadith number 495 (Abi Dawud, 2008).

The hadith indicated that parents were instructed to separate the beds of children since they turned 10 years old, and this study revealed that Islamic values still matter among the residents of the houses around Darul Istiqamah Islamic Boarding School, reflected by the spatial system of their house. The spatial system also found in Javanese traditional house which is influenced by Islamic values (Supriyanta & Malik, 2015). Other than that in Islam, there should be a separation between public space and private space in order to maintain the privacy of the residents. (Razali & Talib, 2013) even

suggested the privacy gradient zoning in the Muslim divided into several spaces consisting public, semi public, semi private and private spaces which is emphasize the concept of privacy in Islam. Study by Nurjayanti et al. (2012) about zoning system usefully arranged house from public space towards private space. Within the zoning system of the house, *hijab* concept is needed as a divider and could be function as transitional area that conceived as a threshold, separating two different spheres of activity - public and private domains or the interior and exterior spaces (Tucker and Lawrence in Othman, 2016).

*Hijab* physically divided into permanent physical elements, such as doors, curtains, or walls and non-permanent physical elements such as furniture and plants. The study found that 80% of participants using doors, curtains or windows to prevent the guest from seeing inside. Few participants used furniture or plants as *hijab*, which made a possibility for guest to look at the main part of the house thereby reducing the privacy of the resident. One of the result of the study revealed that there was the veil between the living room and a family room used to prevent the guest from seeing the main part of the house and family activities, particularly female (Azizah & Putri, 2013). Another study found that traditional Javanese house uses *hijab* in a form of wall as a divider in order to separate public and private space in the house (Supriyanta & Malik, 2015). The front yard functions as the lounge while the inner court functions as an area for family interaction (Azizah & Putri,

2013). Furthermore, 90% of participants answered that the place to perform ablutions or *wudhu* merged with the toilet and only 10% of participants separated it. Ablution space suggested being separated from the toilet in order to pray freely before or after ablution (Mokhtar, 2005). The majority of participants who merged the toilet with ablution space in this study probably due to ignorance of it or lack of space in their houses. A floor plan of two typical houses (modern nor traditional) belong to the respondents in this study with label and scale shown in Figure 4 and Figure 5. Overall, the Muslim home can be projected in general layout plan as seen in Figure 6.

Finally, after collecting data by in-depth interviews and participant observation, focus group discussion (FGD) was conducted to complement the result. In FGD, participants

will be asked their opinion about the role of Islamic houses according to *Qur'an* guidance and Prophet Muhammad hadith as it seems that there is no physical difference between houses in common and Islamic house. By doing FGD, the researcher would like to explore how the participants considered their house not merely as a place for shelter from natural aspects. From two sessions of the focus group, revealed the main ideas of the function of house in Islam. In the first session, focus group attended by the teacher staff of Darul Istiqamah Islamic Boarding School and the summary of the discussion are house as a place to worship Allah and ask for His blessings (*Al-Mushollah*), house as a place for learning and teaching (*Al-Madrasah*), house as a place for solace and remove grief for serenity (*Al-Maskanah*), house

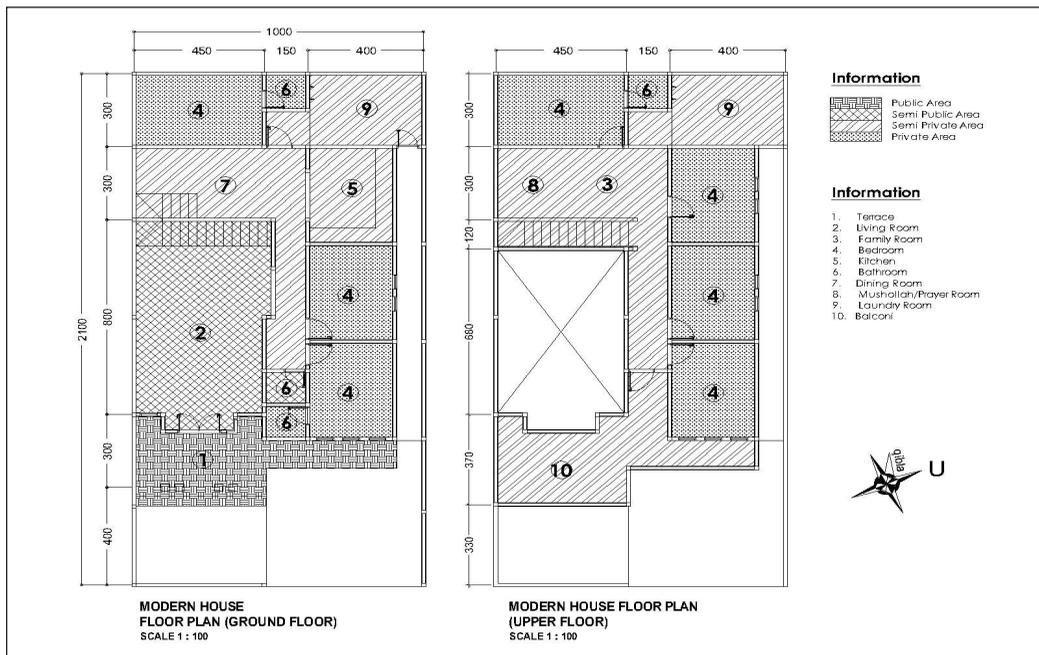


Figure 4. Floor plan of the participant's house (The Modern House)

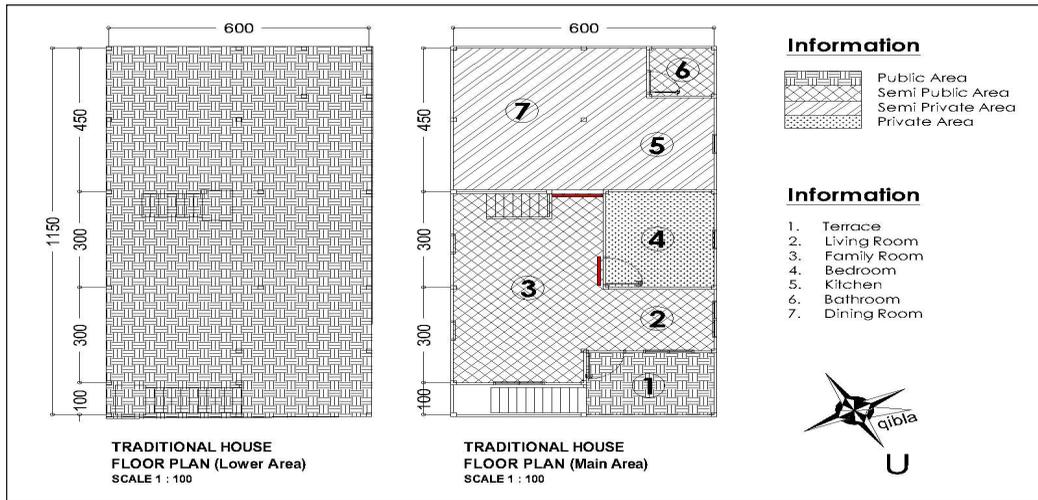


Figure 5. Floor plan of the participant's house (The Traditional House)

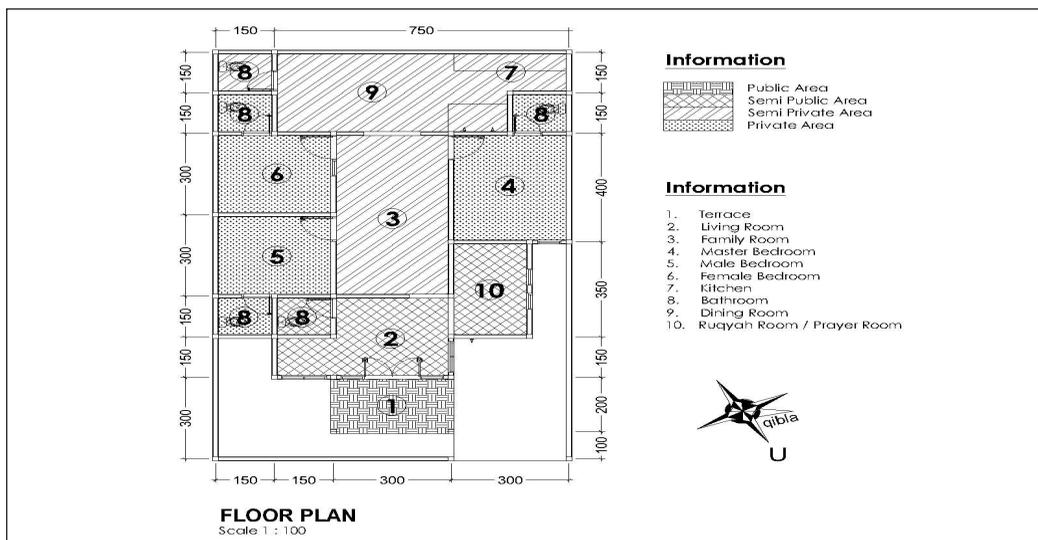


Figure 6. General layout plan of the Muslim house

as a place to breed/reproduce offspring (*Al-Maulud*), house as a place to uphold Prophet Muhammad *sunnah* (*Al-Mahyauz*), and house as fortress to guiding faith (*Al-Junnah*). All of the statements are supported by *Qur'an* and hadith. Therefore, in study results, it was found that Islamic values reflected as a manifestation in their daily life that led to embodiment of Islamic house.

Moreover, in the second session, there is an explanation from the community leader which said that Moslem houses must facilitate the privacy protection among the family members inside the house. Thus, there should be a space designated for guests and visitors in every house. However, if some houses cannot afford a separate space for guests and visitors, any other space

which is strategically located can serve the purpose. Additionally, he also said that the function of the house as *Al-Markaz* aimed to prepare for Islamic cadre who made the *Qur'an* and hadith as guidance in every aspect of their' life, do as told by God and avoid what God forbid, like in the following verse:

*“O you who believed! Ward off yourselves and your families against a Fire whose fuel is men and stones, over which are (appointed) angels stern (and) severe, who disobey not, (from executing) the commands they receive from Allah, but do that which what they are commanded” (Qur'an 66: 6, King Fahd Complex for the Printing of Holy Qur'an).*

The leader of Darul Istiqamah Islamic Boarding School gave his point of view about the implementation of Islamic values that reflected in Islamic house as well. In the beginning, he enhanced that first thing to do before building a house is that we should know where we buy the house from. Borrowing from the bank to buy a house could lead to *riba'* as it is prohibited in Islam. Buying with financing seems like an option since everyone does it.

Regarding Islam guidance, *Qur'an* furnishes Moslems with a comprehensive conceptual framework for housing which has been first applied, explained and further enriched by Prophet Muhammad. In Islam, the house is a place to rest or relax the body and mind, as well as enjoying legitimate worldly delights. Within the realm of their

houses, Moslems also worship, teach, learn and propagate the message of Islam. Central to the standards by which a house may be categorized as “Islamic” are the holiness and purity of its philosophy, vision, function and utility, accompanied by convenience, efficiency, safety, awareness of the physical surroundings, and anything else that Islam reckons as indispensable for living a decent and accountable family life. The house which is not constructed properly considering its physical and non-physical aspects will potentially become a place that could lead to social ills and paralyze the entire communities. However, Islamic house can only be enforced if supported by the family who lives in the house devoted to worship Allah and doing daily activities in the house based on God's command and stay away from what God forbids. The closing statement asserted that humans were sent to earth to become the caliph to preserve and maintain their house as well as their environment.

## CONCLUSION

The study concluded that the presence of Islamic boarding school, in this case, the presence of Darul Istiqamah Islamic Boarding School could lead Moslem community around the Islamic boarding school to the implementation of Islamic values, both in physical and non-physical aspects. Islamic environment based on *Qur'an* and hadith has been practiced throughout their daily activities and become an inseparable part of their life in the houses around Darul Istiqamah Maccopa in

Maros Regency, South Sulawesi Province, Indonesia. The existence of Islamic boarding school as an educational yet religious institution revealed that it is the effective approach to counteract the negative effects of modernization within the embodiment of sustainable development of architecture. In addition, the existence of Islamic boarding school could be the inspiration for Moslem residential area which will be the role model of Moslem civilization.

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## **The Analysis of National Identification of Russians through Images of Meta-Ethnic Groups: The Case of Four Borderland Regions**

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### **ABSTRACT**

In today's Russia, questions about national identity, nation-building, and nationwide integration are among the most discussed issues at the highest possible political levels. The issues become more acute in borderland regions, where more trans-border movement creates an environment for double or multiple cultural identities and diffuse representations about "ownness" and "otherness". Sociological surveys conducted in four regions of Russia (the Altai region, the Amur region, the Republic of Karelia, and the Jewish Autonomous Region, n=400) explored national identification, structuring ethnic diversity in Russia, and giving grounds for generalizations and stereotypes from the data collected with repertory grids and using hierarchical cluster analysis, PCA, Procrustes analysis, and psychosemantic space building. Main results included elaboration of the original research tool, tested in the Russian borderland, description of Russians as they are perceived by borderland inhabitants, their relations with meta-ethnic groups associated with the Russian nation, and latent factors, influencing the assessment of people of different nationalities.

*Keywords:* Border regions, meta-ethnic groups, national identification, repertory grid, Russian identity, semantic analysis

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### **INTRODUCTION**

The Russian Federation is a poly-ethnic and poly-confessional society. Within the territory of Russia reside more than 190 ethnic groups and nationalities with unique material and spiritual cultures, most of them having played a historical role in the development of the Russian statehood. Ethnic minorities try to preserve their

distinctiveness and traits of traditional culture, and, at the same time, they are integrated in an all-Russian civic nation as independent and equal in civic rights.

The issues of national identity become more acute in borderland regions which are situated on the crossing of geographic, political, ethno-cultural, confessional, economic and trade areas, and spaces. The Russian border region covers about 76% of its overall land area. Bordering with 16 countries, eight of which previously formed part of the Soviet Union, Russia still has problems with the undetermined status of several borderland territories (sections of the borders with Azerbaijan, Estonia, China, Japan, and Ukraine) and the socio-economic problems caused by intense migration and interactions of people, previously residing in a common social and economic space near new borders with Commonwealth of Independent States (CIS) countries (Kolossoy, 2003).

In this context, it is crucial to develop theoretical and empirical models, be able to explore in a comprehensive manner the national identity of Russians in the aggregate of self-perception and the perception of other ethnic groups residing on the same territory, and forming its specific ethno-cultural color. The current article does just this by exploring national identity of a population from four border regions of Russia through the prism of images of the most important meta-ethnic groups inhabiting Russia, treating national identification as a result of comparison of images of 'own' and 'alien' groups.

## Literature Review

The multi-national character of Russian society forms its uniqueness and cultural wealth. Simultaneously, it is an important factor of national security, given that inter-ethnic relations are rarely calm or conflict-free. Peculiarities of the historical situation of the last decades of the 20<sup>th</sup> century, characterized by political turmoil and ethnically motivated violence, have led to a change of priorities in the investigation and political presentation of the Russian national identity. Until the end of 1990s they were focused on the domination of Russian (civic) identity over certain ethnic identities, while recent scientific works took up the idea of pacifist coexistence, positive compatibility, and the integration of national-civic and ethnic identities (Drobizheva, Gottemoeller, Kelleher, & Walker, 2015; Lubsky, Lurje, Popov, Serikova, & Zagutin, 2015). The search for Russian identity became a foundation stone for the successful realization of the State's national strategy, based on the concepts of an 'all-Russian nation' and 'unique multi-national people of Russia'.

Traditionally understood as a part of the socialization process, identification issues were primarily reflected in the works of sociologists tending to present a new vision of this phenomenon, differing from psychological interpretations and based on classical sociological paradigms – structural functionalism, integral sociology, comprehensive sociology, phenomenological sociology, and ethnomethodology. Modern identity research is focused on temporary

nature, fluidity, and individual choice of identity, as opposed to its predisposition and unchangeability (see detailed analysis in Boudon, 1993; Hughes, Sharrock, & Martin, 2003; Misztal, 2003).

The focal point of our research is national identity, shaped and displayed in inter-ethnic, inter-cultural interactions. Analysis of foreign scientific works shows that terms 'state identity', 'state-civic identity' or 'civic identity', very common in corresponding Russian literature, are rather rarely used. Instead, the notion of 'national identity' is widely accepted to refer a nation as a political entity. One of the most powerful definitions of national identity is given by Smith (1991), who presented nation as a political community, having common institutions, a single set of rules and duties for all members of this community, as well as special social space, with which people identified themselves. Smith considered national identity as a multi-dimensional phenomenon, possessing five fundamental attributes: historic territory or homeland, common myths and historical memories, a common, mass public culture, common legal rights and duties for all members, and a common economy with territorial mobility for members.

National identity is assumed to be a significant instrument, helping individuals to fulfill their role as members of a nation. The salience of national identity increases if one needs to compare a person's national ingroup and outgroup and decreases when national identity is not challenged (Stryker & Burke, 2000). Mechanisms of national

identification have a subjective nature but are conditioned and affirmed by objective factors, such as territory, language, religion, state, traditions, which act as symbols, markers used to distinguish one's national community ('we') from another one ('they') and giving the feeling of belonging of the self to its 'own' community (Achkasov, 1999).

It is widely accepted that national identity is a complex phenomenon, including three principal dimensions or components, whose structure is adopted from the social attitude theory. The cognitive component is represented by the awareness of belonging to a nation, representations about people, state, its history, merits and defeats, cultural traditions, and symbols. These representations reflect the image of the country-state and the image of a nation. The effective-evaluative component reflects attitudes towards national community, which may be positive, negative or neutral and indifferent. It could be manifested in recognition or rejection of one's national identity, feelings of pride or shame, patriotic feelings, respect and tolerance towards other peoples or, in contrast, irritation and non-acceptance of national values. The behavioral component of national identity is found in generally beneficial activities, public engagement, ability to confront illegal actions and take responsibility for what is going on in the country (Efimenko, 2013; Kozhanov, 2013; Pratkanis, Breckler, & Greenwald, 2014; Smith, 2014).

The place and the space play an important role in defining national identity,

especially in borderland, where symbolic and politico-jural boundaries between nations and states are much closer (Wilson & Donnan, 1998). As Sadowski (2009) pointed out, a borderland possessed some features that distinguished it from other territories. First, it is always populated by at least two or more ethnic groups, 'which in social consciousness are perceived as distinct'. The scientist highlights the greater sustainability of these groups in comparison with political borders. Second, the border supposes different forms of coexistence of ethno-cultural groups – from cooperation to confrontation. Third, the conditions of borderlands form a singular type of social subjects for whom it is natural to belong to different cultures. Thus, a borderland is a place that contains the moment of achievement and passage to another state and political structure, social-economic reality, language and culture, and where national identity becomes, on the one hand, more salient between other social identities and more ambivalent, and 'fluent', on the other hand.

The security of Russian borders is assured by the economic cooperation with its neighbours and latent politic agreements, entailing economic aid in exchange for stability in borderland regions of neighbouring countries (Ivakhniouk & Daurov, 2003). Economic, social and cultural cooperation and confrontation of ethnic groups, inhabiting borderland regions, is deeply explored by Dines and Nikolaev (2010), Tatarko and Lebedeva (2010), and Ryazantsev, Karabulatova,

Mashin, Pismennaya, and Sivoplyasova (2015). In analysis of migration problems, they emphasize that in the situation of post-migration stress, ethnic consolidation among migrants is very high and this ethnic cohesion may be characterized as 'peculiar inter-community immunity, emerging in conditions, when the ethnic group becomes minority'. It is in this context that the analysis of national identification of Russians should incorporate not only regional peculiarities, but also take into account actual tendencies in inter-ethnic relations, affected by migration.

## **MATERIALS AND METHODS**

The empirical study was fulfilled by means of modified techniques of semantic differential and repertory grids (Coshall, 2000; Fransella, Bell, & Bannister 2004; Kelly, 2003; Petrenko, 2010; Tan & Hunter, 2002). The basic theoretical premise was that people belonging to one nation identify themselves with, or distance themselves from, others on the base of shared representations about common traits of personality, mentality and behavior, specific for members of this particular nation or supranational groups which had been denoted in the title of the article as meta-ethnic groups. Therefore, in designing our measuring instruments, we proceeded from findings in studying national character and stereotypes, national culture and values, (Bar-Tal, 1997; Minkov & Hofstede, 2012; Phalet & Poppe, 1997; Realo et al., 2009; Terracciano et al., 2005), providing extensive materials about how and on which

grounds this can be done. Especially do we mention the theory of national cultures and their differences (Hofstede, 2011), describing six dimensions, influencing individual values and predisposing human action: *power distance*, related to perception of social inequality and distribution of power; *uncertainty avoidance*, associated with strict rules, traditions and in-group conformity (high levels) and initiative, risk and tolerance (low levels); *individualism versus collectivism*, defining the extent to which individuals are integrated into groups; *masculinity versus femininity*, highlighting focus on results, competitiveness and commitment opposed to human relations and cultural values; *long term versus short term orientation*, describing orientation on resolution of strategical, long-term objectives; and *indulgence versus restraint*, related to the gratification versus control of basic human desires related to enjoying life. Though plausibility of systematically causal national cultures is often questioned and criticized (McSweeney, 2002) we found it possible to use this model as the theoretical basis to elaborate scales for subjective assessment of meta-ethnic groups.

From the technical point of view, the procedure involved assessment of ten elements (supranational communities and social groups, in which ethnicity played a substantial role) by 22 seven-point graded scales (from -3 to +3 points).

Reasons for selection of precisely such elements were as follows:

- aims and tasks of the research, supposing exploration of

peculiarities of social perception of ethnic groups and their relation to national identity;

- the objective geographic position of Russia, its intermediate place between the West and the East, that had played a key role in the development of Russian mentality, philosophic and political ideological world-view;
- the structure of ethnic composition of the population of the Russian Federation, historical determinants of the development of the Russian Statehood and its multi-ethnic character, the necessity to satisfy needs and interests of people of different nationalities living on its territory;
- historical specificities and actual state of interethnic and intercultural interactions among different peoples of Russia, changes in ethno-cultural landscape influenced by globalization.

Finally, among over 30 elements originally proposed in the previous stages of the research, only 10 of them were selected following the results of expert evaluations: Russians, Europeans, Asians, Slavs, Caucasian peoples, Central Asian peoples, Small indigenous peoples of the North, Siberia and the Far East, Migrants, Friendly people and Hostile people.

The set of constructs, proposed for evaluation, included assessment characteristics, describing mentality,

national culture, behavior, interethnic and intercultural relations, auto-identification: 1) own/alien; 2) similar to me / different from me; 3) distant / close; 4) lazy, goes with the flow / laborious, purposeful; 5) friendly / hostile; 6) cunning, self-seeking / naïve, artless; 7) practical, rational / emotional, impulsive; 8) indifferent, disinterested / compassionate, empathic; 9) aggressive, warlike / peaceable; 10) unpleasant / inspiring sympathy and respect; 11) conservator, traditionalist/ supporting progress and innovations; 12) individualist, puts personal interests before public interests/conformist, abides by expected behaviour or established practices; 13) intolerant towards people sharing different points of view / tolerant towards other points of view, lifestyle; 14) aspires to superiority, exceptionality / aspires to equality, justice; 15) uncivilized, ignorant / educated, intelligent; 16) responsible, disciplined / easy-going, hopes for the best; 17) honest, decent / insincere, deceitful; 18) brave / cowardly; 19) free, independent / dependent; 20) excites envy / doesn't excite envy; 21) poor / rich; 22) is on a lower level of the social ladder (than me) / is on a higher level of the social ladder.

The study was conducted in four Russian regions in 2015. The need for balance between good coverage and territorial compactness has led to the acceptance of the scheme of stratified proportional sampling, combining probabilistic and non-random technics. The first phase of procedures consisted of selection of regions, urban and rural settlements, followed by calculation of quota samples on the base of statistical data

(proportions of urban and rural population, sex and age of inhabitants). In the next stage, for each randomly-chosen sampling points, interviewers were assigned with a starting location and provided with instructions on the random walking rules and respondents' selection.

The choice of regions was justified by the necessity to represent different parts of the Russian borderland. Thus, the Republic of Karelia was selected as representative of the western part of Russia, which is one of the national republics with specific ethnic composition, having greater proportions of non-ethnic Russians (Russian Federal State Statistics Service, 2012). The Altai region represented Siberian territories, sharing long borders with Asian countries – Kazakhstan, China and Mongolia. The Jewish autonomous region (JAR) was selected as the only remaining federal subject with similar status, but having nothing to do with the nationality, indicated in its title. Considering the intensive development of the international relations of the region, especially in agro-industry, where China plays a role of the key partner (Gessen, 2016; Mishuk, 2016), our research might provide empirical data concerning attitudes of population about migration and changes in ethnic structure of the population. The Russian Far East was represented by the Amur region and was typical for this region's demographic and migration situation – negative natural increase of the population, low standards of living accompanied by intensive international migration (Belenets, 2016).

Regional samples consisted of 100 respondents residing in urban and rural areas. Socio-demographic characteristics of respondents are shown in Table 1. The respondents' age varied from 15 to 75 years. The regional differences in age group proportions did not differ significantly ( $\chi^2$ ,  $p>0,05$ ). Ethnic identification was measured by the classical question "What is your ethnicity? If you cannot mention only one, enumerate all ethnicities you identify with". In the Altai region, 86.3% of respondents were Russians, 11.3% were Armenians,

Germans, Ukrainians and Avars and 2.4% had mixed or unknown ethnicities. In the Amur region, 91.2% were Russians, 4.4% were Ukrainians, 1.5% were Polish, others had mixed ethnicities. In the Republic of Karelia 77.0% were Russians, 17.0% had mixed or unidentified ethnicity, 2.0% were Karels, 2.0% were Armenians, 1.0% were Karachays, and 1.0% were Finns. In the JAR, 76.8% of respondents had pure Russian ethnicity, 20.0% had mixed or uncertain ethnicities, 2.0% of respondents were Uzbeks and 1.0% were Circassians.

Table 1  
Socio-demographic characteristics of respondents in four regions in percentage

Socio-demographic characteristics		Regions			
		AlR	AmR	JAR	RK
Sex	Male	46,2	50,0	45,5	44,4
	Female	53,8	50,0	54,5	55,6
Age	15-29 years	27,6	29,4	28,3	24,0
	30-49 years	35,2	45,6	37,4	39,0
	50 years and over	37,1	25,0	34,3	37,0
Settlement type	Urban	58,5	82,4	68,7	78,0
	Rural	41,5	17,6	31,3	22,0
Ethnicity	Russians	88,3	94,0	96,2	90,6
	Non-Russians	11,7	6,0	3,8	9,4

Note: Hereinafter following notation keys for regions are used: AlR – the Altai region, AmR – the Amur region, JAR – the Jewish autonomous region, RK – the Republic of Karelia.

Data processing and analysis were conducted in several steps. In the first step, general profiles of elements were described on the basis of mean values and their variability (Table 2). In the second step, constructs were analyzed by means of hierarchical cluster analysis and PCA to describe the most important

factors and determining assessment of elements. Additionally, factorial invariance was explored by Tucker's congruence  $\phi$  coefficient and the orthogonal Procrustes rotation among regional samples. Significance was proved by Monte-Carlo permutation tests, generating reference distribution of the data and, thus, giving

more accurate results than those obtained with the use of traditional statistical methods (Chan, Ho, Leung, Chan, & Yung, 1999; Lorenzo-Seva & Ten Berge, 2006; McCrae & Costa, 2008). The fourth step consisted of building semantic spaces, visualising semantic ties and interrelations between different images of ethnic ‘other’ or ‘own’ in the structure of social representations of population of borderland regions of Russia, having their general, invariant (core) and specific (peripheral) features. All calculations were made using SPSS, version 23.0, and software environment for statistical computing and graphics using R.

## RESULTS AND DISCUSSIONS

At the primary stage of the analysis, mean values of bipolar supplied constructs were calculated after data averaging in each region and selected by comparison of a particular mean (Table 2). This was done with the range of a grand mean  $\pm 1\sigma$  (for all elements), which was used for the description of the generalized profiles of elements. Such a method of selection allowed us to avoid biases caused by the tendency of respondents from particular regions to give assessment within a certain range and to reveal the most significant components of the images of meta-ethnic groups that were typical for all covered borderlands and were specific for single territories.

Thus, in three regions, except the Amur region, *the Russians* were described as ‘own’, ‘close’, ‘similar to me’, ‘practical, rational’. In the Altai region and the JAR,

the list of the most important characteristics also included ‘inspiring sympathy, respect’. General negative traits for this group were related to the lack of responsibility and discipline (except in the Republic of Karelia), low social status and poor financial situation, ruse and deviousness. Given that all mean values for negative characteristics were not lower than 3.85 points, the image of Russians was to a large extent idealized and consisted of identification characteristics, associated with positive emotions – respect and sympathy. At the same time, most respondents underlined negative traits of Russian national character, which were perceived as evident and taken for granted, including low assessment of material position.

*The Slavs* were evaluated, similarly, with the Russians. This meta-ethnic group was very attractive for identification. In three regions, except the Amour region, *the Slavs* were associated with practicality and rationality. In the Amur region, key characteristics were intelligence and a high level of culture, going along with individuality and demonstration of superiority. In the Altai region *Slavs* were perceived as cunning and devious, in the JAR they were perceived as responsible and disciplined, supporting progress and innovation, whereas in the Republic of Karelia the most highlighted features were sympathy and respect. Thus, even being quite positively assessed in all borderland regions, the image of *Slavs* differed by core characteristics, attributed to it in different locations in Russia.

The image of the *Europeans* was marked as 'practical', 'intelligent, culturally developed', but 'alien', 'different from me', 'distant' (except the Republic of Karelia, bordering Finland and thus being objectively much closer to the Europe than other regions), 'cunning and devious', 'not exciting envy' (in three regions except the Altai region). Besides this, the residents of the Altai and the Amur regions gave the *Europeans* higher assessments of responsibility and discipline, zeal and firmness of purposes, richness, support for progress and innovations. At the same time, they were perceived as individualists, oriented towards personal than public needs and interests. In general, the image of the inhabitants of Europe was positive and attractive, but incompatible with the mentality of most respondents.

*The Asians*, regardless of common representations about distance and dissimilarity from respondents, had additional characteristics in several regions studied. Inhabitants of the Amur region and the Republic of Karelia considered *Asians* as purposeful and laborious, responsible and disciplined, but cunning and devious. In the JAR, they were associated to a great extent with friendliness. Therefore, the content of the image of Asians varied depending on the specific interethnic interactions, emerging in every region.

*The Caucasian peoples* were one of the most contradictory groups considering the painful history of ethnic conflicts in the territory of Caucasus (for the comprehensive analysis of the history and the modern

state of the question see Avksentyev & Aksumov, 2007; Cheterian, 2008). In all regions, this position was assessed as 'alien', 'distant', 'different from me', 'impulsive', but 'independent' and 'brave'. In the Altai region, they were described as conservative traditionalists, demonstrating intolerance towards people, aspiring to superiority, whereas in the JAR this position was described as responsible and disciplined. In the Amur region and the Republic of Karelia Caucasians were as well associated with wealth and fortune, diligence and purposefulness.

*The Central Asian peoples* have received similar evaluations, but unlike Caucasians they were characterized by very low values of 'envy', combined with other characteristics specific to individual regions. Thus, in the Amur region and the Republic of Karelia, *Central Asian peoples* were considered to be laborious and purposeful, in the Altai region they were labeled friendly and peaceable, whereas in the JAR honesty and decency, responsibility and discipline were attributed to them. These results show that in the context of persistent migration from Central Asian countries, their expatriates are not perceived to be hostile or invasive.

*The Small indigenous peoples of the North, Siberia and the Russian Far East* inspired sympathy and respect and were evaluated as 'rational', 'peaceable' and 'secure', but 'poor' and 'occupying lower steps on the social ladder', 'not exciting envy' and 'conservative, traditionalist'. The values of identification constructs

(own/alien, similar/different, close/distant) were relatively high. At the same time, this position was singled out by the originality of life-style and traditions. In the Altai region, it was associated with courage, ruse, and shrewdness. In the Amur region, the emphasis was on the physical dissimilarity of this population, while in the JAR, small indigenous peoples were considered as 'own', 'close' and 'compassionate', but lacking responsibility and discipline.

*The Migrant's* image contains characteristics 'alien', 'different from me', 'distant', it didn't excite envy. Additionally, in the Altai region migrants were associated with poverty, courage and persistence. In the JAR they were described as having responsibility and discipline, and in the Republic of Karelia – with low social status, diligence and firmness of purposes. This category didn't represent in the respondents' view to be a serious danger. It was perceived in the whole as a group with conservative thinking, low level of education and culture, and dependent on the receiving society.

Among two reference categories – *the Friendly people* and *the Hostile people*, the first was perceived as 'own', 'practical, rational', 'cunning', 'putting personal interests before public ones', 'peaceable' and 'secure', inspiring sympathy and respect and, paradoxically, 'having low position at social ladder', 'not exciting envy'. The image of the *Hostile people* was opposite to the *Friendly people*. It was perceived as 'alien', 'different' and 'distant', 'aspiring for superiority and exceptionality', but 'not exciting envy' too. Additional meanings

varied depending on region. In the Altai region, *the Enemy's* image was associated with courage, in the Amur region and in the Republic of Karelia it was associated with emotionality and impulsivity, intelligence and wealth, whereas in the JAR the main connotations were related to responsibility and high social status. Therefore, unlike the *Friend*, the image of *Ethic Enemy* was endowed with much more power and force, manifested in educational attainment and high cultural levels and material well-being. In the minds of the population, *the Enemy* should merit to be hated and to deserve animosity.

At the next stage of the analysis, the hierarchical cluster analysis was applied to reveal the ensemble of constructs and meta-ethnic groups that were perceived to be similar. The presence of large quantities of constructs hierarchically dependent on each other in regional cases was indicative of the integration of construct systems, their interrelation in the construction of ethnic images. The procedure of multiscale bootstrap resampling was used to define only significant clusters, reproduced in most stimulated samples (Suzuki & Shimodaira, 2006).

The simplest cluster structure was found in the Amur region, where two clusters were reproduced, the first with identification characteristics (close/distant, similar/different, own/alien), and the second one with remaining constructs. The most differentiated five clusters structure was found in the Republic of Karelia. Analysis revealed similarities of constructs

Table 2  
Descriptive statistics of constructs for analyzed meta-groups (means and standard errors of mean, all regions)

Construct/ Element/	Element																			
	Russians		Europeans		Asians		Slavs		Caucasians		Central Asian peoples		Minor indigenous peoples		Migrants		Friendly people		Hostile people	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Own/alien	6,38	0,05	3,28	0,08	2,71	0,07	5,73	0,06	2,75	0,08	2,63	0,07	5,03	0,08	2,42	0,07	5,80	0,06	1,52	0,04
Similar / different	6,01	0,07	3,40	0,08	2,35	0,06	5,62	0,07	2,44	0,08	2,31	0,06	4,54	0,08	2,54	0,07	5,49	0,07	1,77	0,06
Distant / close	6,08	0,06	3,22	0,07	2,57	0,07	5,55	0,07	2,63	0,08	2,50	0,06	4,78	0,08	2,56	0,07	5,62	0,06	1,65	0,05
Lazy, goes with the flow / laborious, purposeful	5,34	0,07	4,51	0,07	4,41	0,08	5,11	0,06	4,12	0,08	3,95	0,07	5,02	0,06	3,98	0,07	5,36	0,06	3,15	0,07
Friendly/ hostile	5,33	0,08	4,46	0,06	4,41	0,06	5,08	0,07	3,53	0,07	4,35	0,06	4,93	0,07	4,16	0,05	5,48	0,07	2,28	0,08
Cunning, self-seeking / naive, artless	4,42	0,07	3,45	0,06	3,56	0,06	4,17	0,06	3,22	0,07	3,68	0,06	4,28	0,06	3,77	0,06	4,10	0,07	2,95	0,09
Practical, rational / emotional, impulsive	4,11	0,07	3,14	0,06	3,81	0,06	3,89	0,06	4,69	0,08	3,94	0,06	3,87	0,06	3,96	0,06	3,73	0,07	4,03	0,09
Indifferent, disinterested / compassionate, empathic	5,45	0,06	3,92	0,06	4,16	0,05	5,07	0,06	3,84	0,07	3,99	0,06	5,05	0,06	3,57	0,06	5,30	0,06	2,47	0,06
Aggressive, warrior / peaceable	5,49	0,06	4,23	0,06	4,24	0,06	5,14	0,06	3,03	0,07	4,10	0,06	5,30	0,06	3,91	0,06	5,50	0,06	2,17	0,06
Unpleasant / inspiring sympathy and respect	5,81	0,05	4,51	0,06	4,20	0,06	5,28	0,06	3,65	0,07	3,80	0,06	5,25	0,06	3,69	0,05	5,64	0,06	2,34	0,06
Conservator, traditionalist / supporting progress and innovations	4,72	0,07	4,81	0,07	3,82	0,07	4,34	0,06	3,11	0,07	3,20	0,06	4,03	0,07	3,59	0,06	4,87	0,07	3,61	0,07

Table 2 (continue)

Construct/ Element/	Element													
	Russians	Europeans	Asians	Slavs	Caucasians	Central Asian peoples	Minor indigenous peoples	Migrants	Friendly people	Hostile people	Mean	SE	Mean	SE
Individualist, puts personal interests before public interests	4,70	3,57	4,09	4,44	3,57	3,88	4,62	3,48	4,82	2,78	4,70	0,06	3,57	0,07
Intolerant/tolerant	4,88	4,32	4,14	4,50	3,00	3,79	4,76	3,81	5,03	2,59	4,88	0,06	4,32	0,06
Aspires to superiority, exceptionality / aspires to equality, justice	4,94	3,71	3,84	4,61	3,07	3,82	4,77	3,77	5,04	2,43	4,94	0,07	3,71	0,07
Uncivilized, ignorant / educated, intelligent	5,36	5,07	4,16	5,01	3,76	3,50	4,64	3,57	5,41	3,56	5,36	0,06	5,07	0,06
Responsible, disciplined / easygoing, hopes for the best	4,23	4,83	4,51	4,27	4,12	4,13	4,29	4,16	4,67	3,91	4,23	0,07	4,83	0,06
Honest, decent / insincere, deceitful	4,97	4,45	4,22	4,83	3,73	4,04	4,80	3,94	5,21	2,75	4,97	0,06	4,45	0,06
Brave / cowardly	5,35	4,35	4,36	5,07	4,99	4,26	5,06	4,18	5,35	3,72	5,35	0,07	4,35	0,06
Free, independent / dependent	4,94	4,63	4,03	4,73	4,51	3,81	4,81	3,52	5,09	3,57	4,94	0,07	4,63	0,07
Exciting envy / Not exciting envy	4,69	4,76	5,11	4,81	5,14	5,30	4,94	5,27	4,79	5,45	4,69	0,08	4,76	0,08
Poor/rich	4,04	4,73	3,86	4,09	4,21	3,43	3,90	3,14	4,42	3,96	4,04	0,05	4,73	0,05
Low status/high status	3,95	4,34	3,59	3,95	3,77	3,43	3,66	3,39	3,90	3,68	3,95	0,04	4,34	0,05

partially that were reproduced in regional samples and united by the subjects of social economic position, ways of thinking, interpersonal relations, national character and identification, which intermediated the distinction between ‘own’ and ‘alien’ meta-ethnic groups.

In the Altai region and in the JAR the ‘own’ group was composed of *Russians*, *Friendly people*, *Slavs*, *Small indigenous peoples*, perceived similarly as the unique people (see Fig. 1). In the Republic of Karelia this group also included the position of *Europeans* and had stable sub-clusters, connecting *Russians* and *Friendly people*, *Slavs* and *Small indigenous peoples*. The Amur region was the only region where these positions were not combined into one cluster, meaning that they had very distinctive features in public conscience.

The second cluster was unique in every region, showing its specificity in perceiving ethnic ‘others’. In the Republic of Karelia the same positions were complemented

with *Caucasians* and *Hostile people*, thereby forming separate sub-clusters. In the Amur region, the ‘alien’ side sub-clusters were significant only at the 10% level, associating together *Migrants*, *Central Asian peoples*, and *Caucasians* with *Hostile people*. In the JAR *Caucasians* were related to *Central Asian peoples*, whereas at the next step of agglomeration they were combined with *Europeans*, *Asians* and *Migrants* in a single sub-cluster. *Hostile people*, despite being in the same cluster of ‘alien’ ethnic-groups, took a distant position as a detached sub-cluster. In the Altai region, it united *Asians*, *Central Asian peoples* and *Migrants*, reflecting actual trends in migration situation. The absence of association between any meta-ethnic groups and imaginary *Hostile people* is further evidence of harmonious inter-ethnic relations in this region which is consistent with the data of annual sociological surveys (Maximova & Morkovkina, 2016).

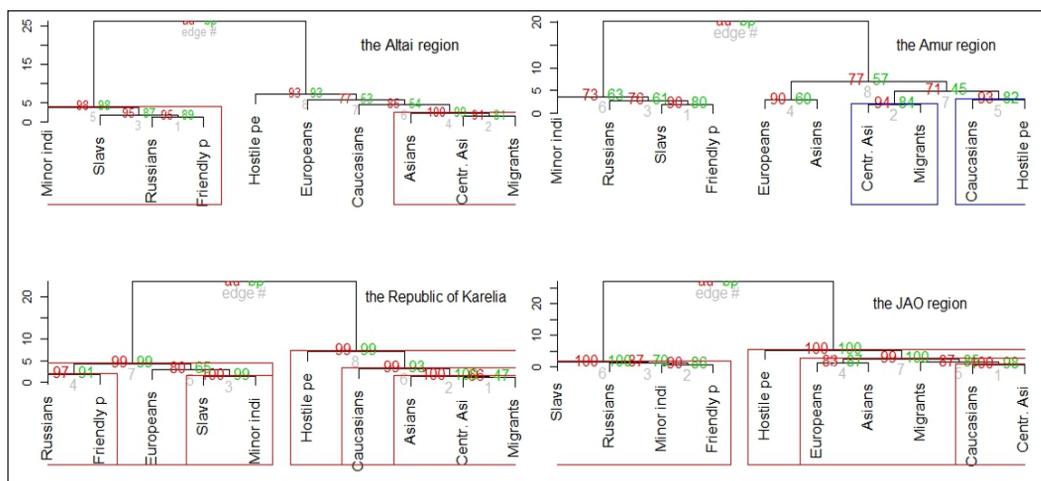


Figure 1. Cluster analysis between elements in four regions (red clusters are significant at 5% level, blue clusters – at 10% level)

The results of cluster analysis (Figure 1) provided evidence for existing latent factors, intermediating the perception of meta-ethnic groups and acting as meaningful determinants for national identification.

It was found that the congruence of factorial structures relevant for the Altai region, the Republic of Karelia and the Amur region was more than 92%, which was indicative of almost equal factor interpretations. The JAR stood out from three other regions because its congruence coefficient varied in the range of 77-79%, which was not satisfactory and indicated significant differences in the factorial loadings (Table 3). Therefore, it was appropriate to present the results of factor analysis for three regions and supplement them with the data from the JAR.

Table 3  
*Congruence of factorial matrices: Pairwise comparisons between regions*

	<b>AIR</b>	<b>AmR</b>	<b>JAR</b>	<b>RK</b>
<b>AIR</b>	1	0.96	0.78	0.92
<b>AmR</b>	0.96	1	0.79	0.92
<b>JAR</b>	0.78	0.79	1	0.77
<b>RK</b>	0.92	0.92	0.77	1

In the Altai and the Amur regions three factors were extracted with eigenvalues over 1.0 and 90% of explained variance, while in the Republic of Karelia there were only two essential factors (Table 4). The first factor contained constructs having positive loadings related to traits of personality and character ('friendly', 'trusting', 'compassionate', 'honest and decent', 'aspiring to equality and justice', 'oriented

towards public interests', 'tolerant', 'laborious'), security ('peaceable'), attitudes ('inspiring sympathy and respect'), and identification. These allowed us to characterize this factor as the factor of general assessment, determining positive or negative perception of meta-ethnic groups. In the Republic of Karelia this factor also contained the constructs of responsibility, intelligence and independence.

The meaning of the second factor was associated with social economic position and cultural development. The positive pole was represented by constructs related to wealth and high level of progress and technology development, culture and education ('rich', 'has high social status', 'intelligent, culturally developed', 'supports progress, and innovation', 'disciplined'), whereas the opposite pole was associated with conservatism, weak discipline, low level of education and culture, poverty.

Key characteristics of the third factor were tolerance, responsibility and discipline, support for progress and innovations, combined with prudence, practicality and rationality. The negative pole was defined by opposite meanings – excessive emotionality and impulsivity, conservatism, and lack of discipline. In general, this factor represented opposition between modern and traditionalist cultures with corresponding types of mentality (rational, individualistic or intuitive, attentive to emotions).

In the JAR, the meaning of the first factor was 'diffused' between the first and the second factor in the Altai and the Amur regions, combining key variables related

Table 4  
Factor loadings after Varimax-rotation

Construct/Region/ Component	AIR			AmR			JAR			RK	
	1	2	3	1	2	3	1	2	3	1	2
Own/alien	0,91	0,35	-0,13	0,90	0,41	-0,01	0,77	0,54	0,30	0,82	0,52
Similar / different	0,86	0,40	-0,09	0,83	0,51	-0,02	0,77	0,54	0,28	0,79	0,55
Distant / close	0,90	0,33	-0,14	0,88	0,45	0,01	0,76	0,54	0,33	0,80	0,54
Lazy, goes with the flow / laborious, purposeful	0,85	0,49	0,03	0,72	0,13	0,60	0,70	0,57	0,39	0,94	0,26
Friendly/hostile	0,90	0,20	0,31	0,91	0,20	0,24	0,51	0,70	0,41	0,96	0,19
Cunning, self-seeking / naïve, artless	0,95	-0,20	0,07	0,92	0,25	-0,10	0,49	0,70	0,48	0,96	0,00
Practical, rational / emotional, impulsive	-0,03	-0,33	-0,91	0,09	-0,11	-0,93	0,44	0,32	0,57	-0,64	-0,43
Indifferent, disinterested / compassionate, empathic	0,96	0,23	-0,05	0,97	0,14	0,12	0,65	0,68	0,33	0,92	0,32
Aggressive, warrior / peaceable	0,93	0,13	0,32	0,94	0,11	0,29	0,68	0,62	0,39	0,97	0,22
Unpleasant / inspiring sympathy and respect	0,91	0,39	0,12	0,93	0,28	0,22	0,70	0,61	0,36	0,91	0,40
Conservator, traditionalist / supporting progress and innovations	0,46	0,68	0,46	0,51	0,62	0,38	0,83	0,18	0,45	0,43	0,80
Individualist, puts personal interests before public interests	0,95	0,11	-0,04	0,93	-0,10	0,20	0,71	0,54	0,43	0,95	0,23
Intolerant/tolerant	0,85	0,19	0,49	0,85	0,20	0,46	0,75	0,52	0,36	0,95	0,29
Aspires to superiority, exceptionality / aspires to equality, justice	0,97	0,07	0,21	0,96	0,11	0,23	0,64	0,61	0,45	0,97	0,19
Uncivilized, ignorant / educated, intelligent	0,60	0,75	0,25	0,49	0,82	0,19	0,79	0,37	0,45	0,71	0,68
Responsible, disciplined / easygoing, hopes for the best	0,14	0,68	0,53	0,31	0,21	0,89	-0,84	-0,28	-0,11	0,75	0,58
Honest, decent / insincere, deceitful	0,88	0,37	0,23	0,88	0,23	0,36	0,40	0,88	0,18	0,93	0,33
Brave / cowardly	0,76	0,41	-0,45	0,90	0,27	-0,14	0,57	0,76	0,07	0,70	0,51
Free, independent / dependent	0,56	0,78	-0,16	0,66	0,61	-0,05	0,78	0,62	-0,03	0,72	0,60
Exciting envy / Not exciting envy	-0,47	-0,84	-0,09	-0,76	-0,52	-0,30	0,04	-0,87	-0,01	-0,78	-0,49
Poor/rich	-0,02	0,99	0,06	-0,19	0,90	0,15	0,86	0,02	0,12	-0,09	0,92
Low status/high status	0,02	0,96	0,23	0,28	0,92	0,12	-0,11	-0,03	-0,95	0,22	0,94
Eigenvalues	12,5	6,1	2,3	12,9	4,46	2,99	9,6	7,15	3,45	14,2	5,8
Proportion of variance explained	0,57	0,28	0,1	0,59	0,20	0,14	0,44	0,32	0,16	0,65	0,26
Cumulative variance explained	0,57	0,84	0,95	0,59	0,79	0,93	0,44	0,76	0,92	0,65	0,91

to social position, mentality and national culture, identification and evaluative characteristics. The second factor was more focused on personal characteristics ('independent, 'brave', 'sincere', 'inspiring sympathy and respect', 'aspiring to equality, and justice'). The third factor was described by characteristics related to social status, emotionality and impulsivity, cultural and educational level, and, hence, almost reproduced the second factor in other regions.

Conjoint representation of constructs and elements in the coordinate system, defined by principal components in the form of semantic space, permitted us to visualize processes of auto-identification and perception of meta-ethnic groups in the studied regions (see Figure 2, 3, 4 and 5).

In the semantic spaces, relevant for all regions, one can see the proximity of *Russians, Slavs, Small indigenous peoples*

and *Friendly people* being situated near projections of constructs 'laborious', 'free', 'aspiring to equality', 'compassionate', 'collectivist', 'sympathetic'. On the opposite side of the space, *Asians, Central Asian peoples* and *Migrants* have similar coordinates near constructs of practicality and ruse, poverty, conservatism, individualism, orientation to personal interests and aspiration to superiority. The position of the *Hostile people* in all spaces is far away from other positions, meaning that despite existing negative stereotypes, none of them is identified as antagonistic. Only in the Amur region does this position come near *Caucasians*, who were described by common characteristics as 'insincere', 'indifferent', 'aspiring to superiority', 'intolerant'. *Europeans* have the most favorable position in the space of the Altai region, where they are juxtaposed with constructs of high social and financial

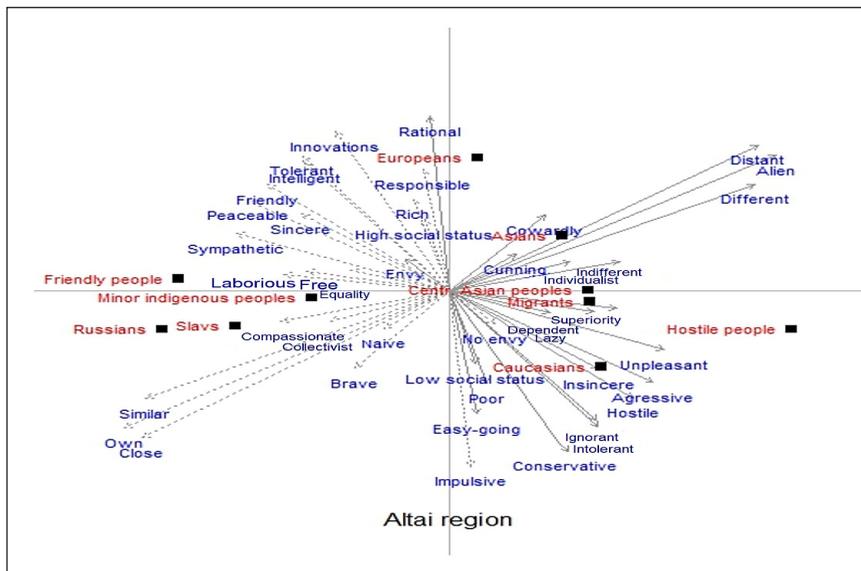


Figure 2. Semantic space relevant for the Altai region



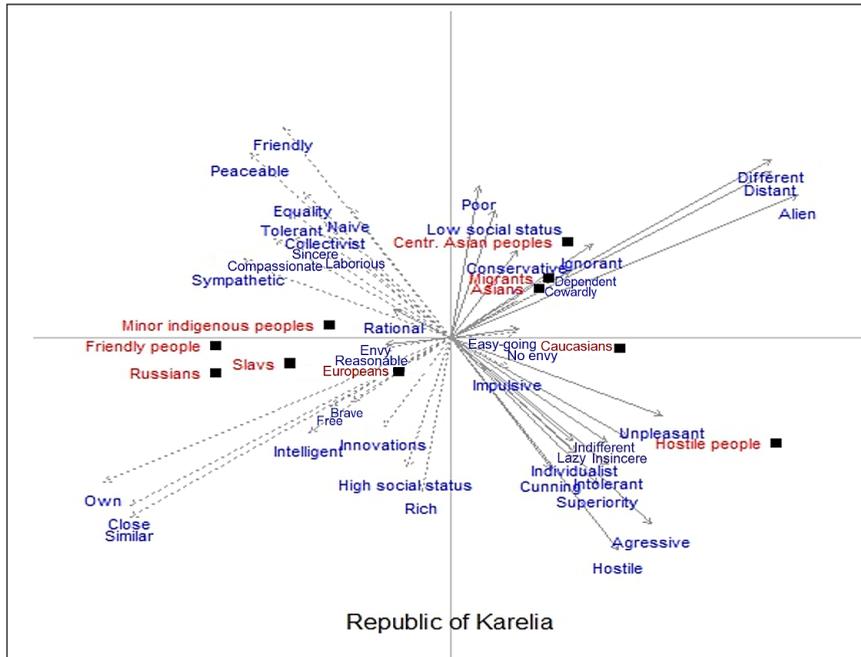


Figure 5. Semantic space relevant for the Republic of Karelia

## CONCLUSION

Our research has revealed characteristics related to identification, emotional evaluation, security, and social and economic position that are the most important for the assessment of meta-ethnic groups. In all regions, *Russians* are perceived as 'own' and 'close' and their image is highly idealized, especially with regard to public engagement and willingness to help others, having intelligence and the ability to maintain security and order. Simultaneously, they are associated with weak discipline, poverty, and low social status that lead to a low self-esteem of the majority of the population from border regions, who are not economically well-developed. *Slavs* are very attractive for identification because their image is related

to common physical and moral traits, having shared destiny and implied friendship. The *Europeans* are associated with good material position and high standards of living, but this position is incompatible with the character and mentality of the majority of respondents. Only the inhabitants of Karelia include them in the 'own' group, that might be explained by its specific geographical position. *Caucasian peoples* are perceived in a contradictory manner and have low identification values in all regions. Impulsivity and emotionality, conservatism, supplemented by aggressive behavior and intolerance represents key components of negative stereotypes assigned to this group. *Friendly peoples*, in representations of inhabitants of the Russian borderland are dispossessed of financial power and wealth,

the most important of these is a proof of good intentions and moral virtues, such as courage and diligence.

Interrelations between constructs form sustainable systems of meanings used in comparison of ethnic groups. These systems, united by subjects of social-economic position, interpersonal relations, national character and identification, define conditional divisions of all positions into 'own' and 'alien' ones. 'Own' are usually presented by '*Russians – Slavs – Friendly people – Small indigenous peoples of North, Siberia and Russian Far East*', forming civilizational and cultural core of all-Russian people, which, despite its multi-national character, is perceived in close connection with dominant Russian nationality. The high congruence of factorial structures was indicative of similar latent factors determining assessment meta-ethnic groups. These factors included the factor of social-economic progress and cultural development and the factor of mentality and the East–West dichotomy. Regional semantic spaces reflected systems of values and representations, existing in the conscience of population, forming stereotyped images of one or another meta-ethnic group. Of course, these representations are very simplified, with exaggerated positive and negative traits; they do not consider many factors of personal, social group and societal character, each having an impact on real inter-ethnic relations.

Meanwhile, such a multicomponent and interactionist view of national identification also has important implications that may

provide direction for future research. First, this view suggests a different way of thinking about national identity than in terms of relations between one person and a community within which one may identify. This comprehension may involve various combinations of positive and negative components of national identity, especially those related to the multi-national character of a nation. Finally, the knowledge of semantical mechanisms used for evaluation of people of other nationalities may contribute to efforts to change these images, to convert them into more acceptable and more convenient forms for harmonious inter-ethnic relations.

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## **Governance of Prostitution through Collective Actions Leading to Uncertain Sustainable Empowerment: Experience from Surabaya, Indonesia**

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### **ABSTRACT**

Organized prostitution has been growing in Surabaya City, and it has contributed to the growth of informal economy, as the main source of income for thousands of local people for decades. Using in-depth interviews with diverse informants, observation, and secondary data, this study shows that despite the advantages, the Indonesian Council of Islamic Scholars (MUI) perceives prostitution as an immoral attitude. On behalf of the Moslem community, they insisted the government remove it totally. Although the city government was doubted, with law enforcement supported by coordinated collective actions, it was finally able to close all the prostitution locations in the city in an authoritative manner. Subsequently, the city government provided empowerment programs for improving former procurers and prostitutes who were non-indigenous Surabaya residents, but it was unsuccessful, since it was insufficient and unsustainable to meet their needs, and it did not encompass all of them. Consequently, some of them still carried out their activities in secret, and many others moved out to other locations of the city and still conducted the same activities as prostitutes. The empowerment program for prostitution-impacted indigenous residents of Surabaya seems to be successful but it was in jeopardy since it was totally dependent on the policy made by the current mayor, personally. Therefore, their future might be at risk when she is not in the power anymore.

*Keywords:* Collective actions, empowerment, governance, prostitution

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### **INTRODUCTION**

This study discusses how Surabaya Municipality in alliance with many other stakeholders removed prostitution since Mayor Tri Rismaharini (TR) got into the power. It asks to which extent Mayor TR

was successful in empowering the target group: indigenous Surabaya residents who were impacted by the prostitution for decades, and non-Surabaya residents, the migrants from the outside regencies. This paper also explores the ways procurers and prostitutes defend themselves from the policy. It is likely that in a democratic polity, the majority (including the government and elite stakeholders) would easily remove the minority (procurers and prostitutes), despite the collective action undertaken.

The purpose of this study is to find out how the Surabaya City government deals with practices of prostitution. The main focus is in the reform era that normatively put forward the ways of democracy and the implications for the future livelihood of local residents who relied for decades on the existence of prostitution in their neighborhood, and that of the prostitutes and procurers after their removal.

This study employs combined collective action and postmodern feminist approaches. The logic of collective action is that if everyone in a group of any size has mutual interests, then they will act collectively to accomplish them; and that the majority in a democratic country tends to be a dominant or powerful group who may tyrannize the minority (powerless group) (Olson, 1971). This theory is appropriate to analyze the relationship between the city governments which may be in alliance with other powerful groups who have similar interests to remove prostitution. This study also uses postmodern feminist

approach because it brings into question the indiscriminating recognition of modernity; it motivates development specialists or planners of the Surabaya City that power is not exerted merely at the level of the state, and it advocates a friendlier, more localized, and specific examination of women's strategies for survival. With its commitment to recognizing struggling global disparities, it provides reasonable areas for generalist analysis (proper when key points need to be created) and attentiveness to complexity and nuance (Bordo, 1990). Since prostitution is a very complex issue, the government's policy of governing prostitution needs to consider diverse interests and values, not only those of governments, elites, dominant religions, and certain groups, but also those of other communities, especially those directly affected by the policy. Any policy action or development plan will fail if it is unable to adequately accommodate the needs and values of the local community (Moser, 1989).

Surabaya City, one of the municipalities in East Java Province with many attractive characteristics, has tempted many people from rural regencies to migrate into the city seeking for jobs. Due to the lack of competence, desperation, and severe competition in the formal employment sectors, many poor and unskilled migrant women enter the realm of prostitution. Since the 1960s, it has been growing gradually in six locations: Dupak Bangunsari, Kremil Tambak Asri, Klakahrejo, Sememi, Dolly, and Jarak; the last two are in the city center.

There are diverse definitions of prostitution. It can be defined as expression of a pure hatred for the female body (Dworkin, 1997); domestic violence against women (Farley, 2008; Shaver, 2005; Weitzer, 2009), rape by payment (Raymond, 1995); sex purchase by men with no respect of women (Hughes, 2005); coercion and domination by procurers (Farley, 2007); sex batterers for women, sex offenders, or rapists (Macleod, Farley, Anderson, & Golding, 2008; Raphael & Shapiro, 2004); inherent exploitation and harm to workers (Weitzer, 2010); a cruel discrimination of the genders (Farley, 2004); and an establishment resulting in fatality and illness of women (Raymond, 2004). These definitions indicate that prostitution should be prohibited. However, this categorical terminology cloaks the empirically verified interactions between workers and customers, which are many-sided and diverse.

Conversely, some other scholars define prostitution as sex working women (Harcourt & Donovan, 2005; Kurtz, Surratt, Inciardi, & Kiley, 2004), escorts, or providers (Weitzer, 2010). Others prefer using the terminology of prostitute customers instead of rapist or sex offenders (Monto, 2004; Monto & McRee, 2005). They tend to recognize that prostitution is a complex issue, caused by many factors, including poverty, homelessness, abuse, low self-esteem, poor educational achievement, and other indicators of deprivation (Magesa, Shimba, & Magombola, 2013; Raphael, 2015; Scoular & O'Neill, 2007; Tugume, 2015). Therefore, law enforcement and

other regulations unrelated to the root of the problem might be insufficient to resolve the problem of prostitution.

Generally, prostitution is a relationship for economic gain: a trade for money or almost anything that has a monetary value (Raphael, 2015). For the purposes of this study, prostitution is defined as the practice of sexual relations between females and males, carried out beyond wedlock, to obtain compensation of money or other material forms for the female.

The Indonesian government perceives that prostitution violates the values of the community at large, mainly women's dignity, family, and children's future. Therefore, prostitution is prohibited and conceived as a social problem. Since it is seen as wrong behavior that disgraces and degrades a woman (Raphael, 2015), this common standpoint has strengthened moral repression through the criminalization of women in prostitution (Phoenix & Oerton, 2005), and paints women as guilty for the social problems they committed, warranting a penalizing response when they continue with their engagement in prostitution (Phoenix & Oerton, 2005).

Surabaya Municipality has issued the Regional Regulation No. 7 of 1999 to prohibit prostitution. The Indonesian government has issued some regulations consisting of Law No. 7 of 1984, Law No. 23 of 2002, and Law No. 21 of 2007; all are intended to ban and control the practices of prostitution. Recently, the Ministry of Social Affairs urged that all regencies

and municipalities in the country should be prostitution-free until 2019. However, tolerance is effective in preventing and managing conflict (Rochon, 1999), so the government sometimes tolerates brothels and women-purchase for commercial and sexual exploitation. It is doing so to prevent conflicts in densely populated urban areas with religious and cultural difference, like the city of Surabaya.

Although the city government issued a local law in 1999, as the basis for fighting prostitution, it is not surprising that the number of prostitutes and brothels increased. Until the end of 2011, the Surabaya government did not consistently implement the regulation because of tolerance. The lack of the state's control and the tolerance for prostitution within local communities contributed to the growth and sustainability of prostitution practices (Cho, Dreher, & Neumayer, 2013).

There have been a range of current studies on prostitution. Some focus on the legal issues (Aronson, 2006; Kohm, 2005; Valor-Segura, Expósito, & Moya, 2011); causes of prostitution (Alobo & Ndifon, 2014; Magesa, Shimba, & Magombola, 2013; Qayyum et al., 2013; Raphael, 2015; Tugume, 2015); or the effect of prostitution on the spread of diseases (Bhunu, Mhlanga, & Mushayabasa, 2014; Lowndes, 2016; Tugume, 2015). Others focus on prostitutes as victims of violence (Beckham & Prohaska, 2012; Carline, 2009; Farley, 2008); the basic improvements of women's lives (Aronson, 2006); the social responses to prostitution (Wahab, 2002); or

the main aspects of the work environment (Weitzer, 2007). Despite these diverse studies, the perceptions provided by earlier theoretical, empirical, and case-study work on prostitution, none address the collective actions made by the city government that cause conflict with the groups of local people who defend prostitution. Nor do they address the local government empowerment programs for the powerless groups.

## METHODS

The study is a descriptive qualitative research that uses in-depth interviews, observation, and secondary data. The fieldwork research was undertaken in two 6-month stages (July–December 2016 and January–June 2017). It targeted brothels, street traders, procurers, prostitutes (both current and former), and government officials. The informants were asked about their roles, actions, and attitudes regarding the six prostitution-prone locations in Surabaya (Dupak Bangunsari, Kremil Tambak Asri, Klakahrejo, Sememi, Dolly, and Jarak). This approach was designed to get an insight into their viewpoints and the ways they comprehended the interactions between groups and individuals. This included a triangulation, using several moves towards people from different courses, selected based on purposive and snow-ball sampling techniques. Finally, detailed content analysis of secondary research and local newspapers was combined with interviews with the local people, encompassing former parking attendants, former mediators, leaders of

local associations, heads of neighborhood and citizen associations, former security officials (thugs), and the Islamic Scholars. The validity of the research is maintained using multiple sources of data and information (triangulation of data sources), multiple methods of data collection, and interpretation.

## RESULTS

Soon after TR was inaugurated as the Mayor of Surabaya (September 2010), she presented her plan alongside Soekarwo, the Governor of East Java, at the Naval Command Education forum on fast-breaking. During this meeting, the chairman of Islamic Scholar Assembly (MUI) was critical on the slogan: “Budget for the people, prosperous and noble East Java, in the framework of the Unitary State of the Republic of Indonesia”, claiming it was just a political jargon. He assessed that the motto did not meet reality, since East Java was the real nest for the bulk of prostitution. These critiques could mean a demand, an order, or a form of pressure on the government, keeping in mind that the Islamic scholars were influential among stakeholders. Due to the critiques, Governor Soekarwo issued Decree No. 460/16474/031/2010 (30 November 2010) on prevention and control of prostitution and human trafficking. A year later, he issued decree No. 460/031/2011 (October 20, 2011) containing a plea for an East Java freed from immorality. These two decrees were practically an order for Mayor TR to entirely remove prostitution

from Surabaya. Since then, the total closure of all the prostitution-prone locations in the city became her institutional policy agenda.

Finally, the local government implemented the program of prostitution closure for the period of 2012-2014. In 2012, 61 brothels, with 50 procurers and 163 prostitutes, were closed in Dupak Bangunsari. A year later, city authorities shutdown 198 brothels, with 183 procurers and 781 prostitutes at three separate locations (Kremil Tambak Asri, Klakahrejo, and Sememi) followed by the two remaining locations (Dolly and Jarak) in 2014.

During the first 2 years of the process, the procurers and prostitutes tried to resist; however, they were helpless, since they had no sufficient support from other stakeholders, including the heads of neighborhood and citizen associations, local residents, or any military or police personnel. Moreover, most of the procurers and prostitutes were not very well organized; they were migrants from outside Surabaya, with very few links within the local population. Instead, they acted individually, renting indigenous people’s houses to use as brothels. The number of local people renting their houses for brothels gradually decreased, due to the intensive Islamic teaching in these neighborhoods. Finally, the city government was able to close all the brothels within the four locations quite easily.

On the other hand, although the city government claimed that its program was successful, this was not always the case. The closure should have been followed by 3,000,000 rupiah compensation (at

the time, close to 300 USD) per person, yet the attempts were insufficient. The compensation was too late, and many procurers and prostitutes did not even receive it. The city authority urged them to shift toward a legal occupation accepted by the community at large. Indeed, many of them followed and become clothes or food sellers, while others disregarded this encouragement. It also provided short courses to empower former prostitutes, but many of them remained unskilled. Thus, the government's policy on the closure of the four locations still left some problems unresolved comprehensively. Consequently, many of them moved to other locations (Dolly and Jarak) and continued their old occupation as prostitutes or procurers.

These two prostitution-prone locations became well-known and recognized by the general public. As the number of demands increased, the supply of prostitutes increased as well. So, the illegality did not eradicate the market, given the strong demand from the clients and the willingness to supply prostitution services, including those that involve underage girls. Since the closure of the first four locations of prostitution, Dolly and Jarak remained as the only prostitution locations. In 2014, there were 250 procurers managing over 300 brothels with 1028 prostitutes.

The prostitution at Dolly and Jarak was very well organized. Procurers and prostitutes had strong links with the heads of neighborhood, citizen, and local residents' associations, as well as the street vendors, parking attendants, local government

officials, and politicians. Most brothels provided alcoholic beverages, and many people suspected Dolly and Jarak were the main areas of drugs-trafficking as well. This was an issue that might be used to remove prostitution immediately, justifying the actions of the city government, in coordination with police and anti-prostitution interest groups.

Most prostitutes from Dolly and Jarak were migrants from outside Surabaya, mainly from the provinces of West Java, Central Java, and other regencies in East Java. Many of them were young females less than 18 years old. The predominant reason for them becoming involved in prostitution was poverty. Some were even sold by their intimate friends. Many others were willing to find jobs to fulfill the economic needs of their family, or to pay the education costs for their relatives. Moreover, in 2013, the city government detected 127 prostitutes suffering from HIV/AIDS in Dolly and Jarak. A few months later, 91 new cases were found in May 2014, and the total number of individuals with HIV/AIDS reached 218.

Mayor TR was doubted as to whether she would be able to successfully implement the policy in these two locations, keeping in mind that, in 2014, there were many conflicting issues to consider. First, the total prostitution closure in Surabaya would have serious social impact, since the prostitutes might then conduct their activities everywhere beyond the government's control. Secondly, all the other informal economic activities that followed

prostitution (including laundry services, cafés, food courts, karaoke bars, mini stores, street vendors, parking spaces, and intermediary services), and that thousands of people depended on, would also be at risk.

The Mayor even felt that her life would be at risk, since prostitution was backed up by quite diverse stakeholders who attempted to reject any governmental policy to remove prostitution. Also, she was involved in a conflict with the Vice Mayor, with whom she had a misunderstanding regarding the way the prostitutes and the procurers should be treated after removal. She believed that prostitution had a psychological effect on teenagers in the area, following the government's finding that many local high-school students were at risk of getting involved in prostitution. She felt that she had obligation to save the new generations from prostitution.

Nevertheless, the city government encountered difficulties executing its policy in the two locations, mainly because of the strong rejections of influencing procurers and prostitutes, backed up by local association leaders and residents, some of them with strong relations to military and police personnel, city officials, and local politicians. All actors and their activities in this area were interconnected and interdependent. Moreover, at the time the Vice Mayor seemed to side with the Dolly and Jarak communities.

As the city government was in doubt, again the MUI and 53 Muslim mass organizations of East Java, designated as the United Islamic Movement (*Gerakan*

*Umat Islam Bersatu*), went to the Mayor's office. They included the Islamic Defenders Front (FPI), Hizbut Tahrir Indonesia (HTI), Laskar Arif Rahman Hakim (Arif Rahman Hakim Militia), United Madura Forum, Al-Bayyinah, Indonesian Da'i Young Association, Indonesian Muslim Youth, Anti-Deviant Sect Front of East Java, and others. They met the Mayor on May 14, 2014, and strongly urged her to execute the program and entirely shut down the prostitution in Surabaya. They claimed that if the Mayor failed to implement her policy, they were ready to fight against those who opposed the closure of prostitution.

However, TR had also a bad experience with the Indonesian Democratic Party of Struggle (PDIP), the party nominating her as Surabaya Mayor. She was suppressed by the PDIP and several political parties that attempted to depose her from her position as Mayor at the beginning of her administration in 2011, because she passed a law on advertising that was detrimental to some employers and elites. Only the Islamic party and the Prosperous Justice Party (PKS) maintained TR as the Mayor of Surabaya.

Despite the conflicting issues and many reasons to consider, the city government finally defined the prostitution in Dolly and Jarak as a public problem and decided to act on it. The definition was based on three main reasons. First, the prostitution in Dolly and Jarak was against the local law no. 7/1999, which prohibits having brothels in private residential objects. Second, prostitution degrades women's dignity. Third, it damaged the morale of the local

youth. The city government then encouraged prostitutes and procurers to change their current occupations to new jobs that are morally accepted.

Finally, the city government consulted many elements within communities, mainly Islamic groups in East Java, local legislators from different political parties, the army, and the police for their support to close the prostitution activities. Due to the supports, the city government was finally able to declare the closure of the locations for prostitution on 18 June 2014, which was the last day that the prostitutes could reside there. At that time, the 2015 Mayoral election was approaching. The closure declaration ceremony was held in the Islamic Center, which was only 300 m away from the areas of prostitutions of Dolly-Jarak. Various government representatives attended the ceremony: the Minister of Social Affairs Salim Al Jufri, the East Java Governor Soekarwo, Surabaya Mayor TR, the Chairman of Regional People's Representative Assembly of Surabaya Macmud, the Chief of East Java Province Police Garrison, Chief of Surabaya City Police, legislators, and heads of government divisions of Surabaya City. The local NGO groups and the Indonesian Council of Islamic Scholars (MUI) presented as well. The city government mobilized heads of neighborhood and citizens associations, representatives of prostitutes and procurers, and nearby residents. All were asked to show public support and their desire to remove prostitution. However, most procurers, prostitutes, and brothel owners did not show up.

The declaration for closing prostitution – supported by elites and other stakeholders and coordinated by the city government – was nonetheless rejected by thousands in the Dolly and Jarak communities who protested the actions. Procurers, prostitutes, brothel owners, street vendors, parking attendants, intermediary persons, and some local associations expressed their opposition by collective prayer. Organized in the so-called Prostitution Worker Front, they blocked the access to Dolly and Jarak, and burned the invitation letter to the declaration ceremony they received from the city government.

Despite the official closure, many procurers still operated their sex business stealthily. The city government made an ultimatum that any procurer, prostitute, intermediary, or any other sex worker who disobeys the local government regulation will be cracked down upon. To keep the ultimatum, the city government recruited hundreds of individuals from civil service police units, the police, and the army to secure, oversee, and control the two locations. As the result of both pressure and intimidation from the city government, the prostitution in Dolly and Jarak was finally closed. The city government promised that the closure would be followed by the program of empowerment, not only for the impacted local people but also for the former prostitutes and procurers, who were mostly non-Surabaya residents.

The TR administration empowered local people by providing various courses in tailoring, shoe repairing, and *batik* making. It also developed a center of *batik*

to accommodate local products. The city government recruited hundreds of former informal security staffs in Dolly and Jarak and their adult sons, offering the security position in formal sectors, with monthly salaries of 3,200,000 rupiah, which is considerably higher than the previous 1,500,000 rupiah, without health insurance. Their children were provided with schooling tuition for elementary and high schools. All the impacted families were granted health insurance. However, the sustainability of these measures was uncertain, since eradicating prostitution in Surabaya was exclusively the program of Mayor TR.

The empowerment for the prostitutes and procurers came in the form of compensation. The budget was provided by the Ministry of Social Affairs (total assistance of 7 billion rupiah, awarded to 1,449 prostitutes from Dolly and Jarak) and the East Java Province (amounting to 1.5 billion rupiah for 311 procurers). Each former prostitute and procurer received 5.05 million or 5 million rupiah, respectively. Not all the prostitutes and procurers agreed with the policy. Many of them rejected the compensation, expecting that the prostitution activities would continue. The city government's sole concern was that prostitution was removed entirely. As the city government enforced the local law 7/1999, alongside the implementation of the Governor Decree No. 460/16474/031/ 2010, and Decree No. 460/031/2011, it strictly banned the use of houses and villas for brothels. Following the closure in Dolly and Jarak, many brothels that used to belong to the procurers were

then sold to the city government and used as training and education centers for shoe production and other economic activities, in which thousands of women from Surabaya participated. The communities of Dolly and Jarak continued to be under the supervision of the city government, police, and military.

## DISCUSSIONS

Prostitution in Surabaya was related to complex issues (Raymond, 2003) embracing law, economic, moral, politics, and health concerns. Factors, including poverty combined with trafficking and other indicators of deprivation (Magesa, Shimba, & Magombola, 2013; Raphael, 2015; Scoular and O'Neill, 2007; Tugume, 2015), contributed to the growth of prostitution in Surabaya. However, among the many factors contributing to prostitution, 'poverty' has been the most 'significant force behind the growing number of prostitutes' in many developing countries (Li, 1995; Raphael, 2015; Scoular & O'Neill, 2007).

Even girls younger than 18 years of age were prostituted in Dolly and Jarak, thus becoming victims of human trafficking. It was in fact an economic action by traffickers seeking to generate earnings (Salt, 2000; Salt & Stein, 1997). Traffickers sell people for sexual exploitation when market conditions make it profitable (UNODC, 2014). Although prostitution is illegal, most people living in locations of prostitution were tolerant to it, since many of them obtained positive economic impacts from the activities. Thus, it was difficult to stop

the trafficking and sex business, since the people around the area were permissive to prostitution (Aghatise, 2004).

Although some countries have legalized and/or decriminalized systems of prostitution, which includes decriminalizing procurers, brothels, and buyers (Raymond, 2003), the Surabaya city government did not legitimize it. There was still a debate whether prostitution should be “legalized,” as the community of Doly and Jarak expected, or “banned”, as the Islamic community strongly urged (Outshoorn, 2005). Some argued that legitimizing prostitution as work makes the harm of prostitution to women invisible, expands the sex industry, and does not empower the women in prostitution (Raymond, 2003). However, although prostitution is entirely illegal in Surabaya and those involved in prostitution including sex workers, their procurers, and clients will be indicted if they are seized, it does not always remove the market, because there might be a strong demand from the clients and willingness to supply prostitution services (including girls younger than 18 years of age). The equilibrium quantity of prostitution will be a function of supply and demand, just as in any other market (Cho, Dreher, & Neumayer, 2013).

Many stakeholders affiliated with the city government perceived prostitution as a negative behavior with a different tone. The Islamic community took a firm ground that prostitution is indeed a sinful behavior, yet they did not provide any reasonable solution. Others believed that the locations

with prostitution were found to contribute to uncontrollable drugs trafficking and alcohol consumption, so that it created public fear of crime (Aggleton, 1999; Cusick, 2006; Hubbard, 1998). Public fear could justify the city government’s efforts to define prostitution as a public problem.

Importantly, the critiques that came from the Surabaya Islamic Scholars, combined with a reality that most brothels provided alcoholic beverages too, strengthened the Mayor’s position on prostitution as a public problem. The city government decided to remove prostitution, but it did not conduct sufficient analysis of the reasons behind the paid-sex market, prior to defining the problem, a definition that may be quite complex. The emergence of prostitution in Surabaya is a product of various location-based economies. It is closely linked with various economies of agglomeration, synergy, complementarity, and ‘laddering’, whereby an entrant to paid-sex consumption may progress from low-value added products to those of higher-value added (Cameron, 2004). The city government wasn’t well prepared when it comes to dealing with the prostitution. It acted in a hurry, wishing to secure supports from diverse stakeholders, regarding its desire to remove the prostitution. The city government asked not only the Islamic community and government elites for an alliance, but also the prostitutes, procurers, and leaders of citizen associations and neighborhood associations. The mobilization of resources and formation of alliances are key strategic activities to strengthen collective action

(Jenkins & Perrow, 1977). Collective action is the involvement of a group of people, with shared interests, who implement common and voluntary actions to pursue those shared interests (Marshall, 1998; Meinzen-Dick, Di Gregorio, & McCarthy, 2004; Olson, 1971). It refers to the understanding of the role of formal and informal organizations that co-ordinate and support such actions. Collective action may occur spontaneously, while in other cases institutions may play a vital role in creating and coordinating local action for a shared interest (Meinzen-Dick et al., 2004).

The collective action coordinated by the city government was opposed by the coalition of the prostitution community. They created a bonding social capital, a linkage of people with similar objectives (procurers and prostitutes), a bridging social capital, and a linkage of groups with others who have different views (owners of brothels, street vendors, intermediary persons, local associations, parking attendants and workers) that may strengthen the capacity of the group (Pretty, 2003; Woolcock & Narayan, 2000). Their social capital was represented in the form of protests: collective prayers, blocking the access to Dolly and Jarak, and burning the invitation letter to the closure ceremony. This is informal collective action, where local networks and local groups of people organize and coordinate local action to achieve specific short-term purposes (Ostrom, 2004). The two competing groups were making collective actions, but with different purposes and contradictory to one

another. They were in conflict because of different interests, due to the unacceptable government policy and the pro-prostitution community.

Although most of the communities who were pro-prostitution expected the legalization, the Mayor, and the leaders of Islamic community, who seem to be authoritative, strongly rejected such an idea. There were some reasons why these authoritative individuals were more likely to oppose the legalization of prostitution: (a) conservatism, or a strong regard to the *status quo* combined with an alienation for anything new or different, (b) a tendency to react in a punitive manner against individuals whose behavior disobeys the rules, (c) a great distrust and suspicion of prostitutes' nature, due to the belief that prostitution is inherently sinful and immoral, and (d) anxiety regarding sexual activities, the result of prediction of the authoritarian's intimidated sexual desires (Abrams & Fave, 1976; Adorno, Frenkel-Brunswick, Levinson, & Sanford 1950).

Increasingly, enforcement of the law has taken place as part of partnerships and multi-agency work among the police, local authorities, voluntary sector, and other agencies, but far less frequently the local community (Matthews, 1993).

Moreover, the Surabaya Municipality failed to see poverty as the core problem behind the prostitution, which should be resolved first. It even used local law as an instrument to overcome this problem. There was the common belief that this law enforcement to remove prostitution tended to

be driven by community complaints (Benson & Matthews, 1995; Hubbard, 1998), mainly the Islamic Scholars Board. Prohibiting prostitution also raised tricky “freedom of choice” issues concerning both the potential suppliers and clients of prostitution services (Cho et al., 2013). Moreover, this top-down approach by enforcing local law, pretending to be a “networked” participatory approach since many stakeholders were involved, failed to empathize not only with sex workers’ experience of exclusion, but also the complex routes of involvement in prostitution, based in gender politics, poverty, and criminalization (Scoular & O’Neill, 2007).

The city government promised to empower former procurers and prostitutes. Empowerment means helping people, individually or collectively, to gain control or greater control over their lives. It means providing them, often because they are disadvantaged in some ways, with opportunities and resources to develop knowledge, skills, and motivation to pursue positive change to their personal circumstances and/or to their communities, and being empowered can contribute to people’s physical, psychological, and economic well-being (Murphy & Cauchi, 2006). Unfortunately, the city government did not meet these empowerment requirements. It failed to maintain the former prostitutes’ welfare, since many of them rejected the city government’s compensation and other empowerment measures, since they were insufficient to maintain their future livelihood.

Furthermore, many former prostitutes were not covered by this program, because it was unsustainable. Thus, the value of a welfare state and, hence, governance of prostitution based on social rights and the sharing of collective risk have disappeared. Instead, the government presents only a modest safety net with narrower forms of conditional claim (Scoular & O’Neill, 2007). Whether the former procurers, prostitutes, and any other affected stakeholders would accept the city government’s offer is subject to the agreement between the affected stakeholders and the government; mutual commitments on the part of both the affected stakeholders and the government, if compulsory, compelled them to admire the city government’s concerns to provide welfare for them (White, 1999). Unfortunately, the city government did not make any significant effort to persuade former sex workers to accept the offer. They seemed to be satisfied merely by seeing the city prostitution-free, without any willingness to secure their future after removal.

To maintain the former-prostitutes’ survival and ensure that the empowerment program would be successful, the city government had obligations to provide a reasonable minimum standards of living; a realistic opportunity to be productive, with recognizable other forms of paid work, and a reasonable level of equal opportunities for all members (White, 2000). The satisfaction of the basic needs such as food, habitat, health, education, and security are a basic prerequisite for achieving empowerment

of prostitute women and procurers. The achievement of these objectives is dependent on basic structural transformations of societies. These transformations can only be achieved through good governance and sincere leadership (Fayemi, 2009).

The empowerment of many women has been recognized as a prerequisite for achieving effective and people-focused development and empowerment schemes (Agu, cited in Mukoro, 2013; Owolabi & O'Neill, 2013). However, the current spread of state-funded programs of empowerment must be considered with grave concern since the government's promise to develop women's dignity may be simply effusive (Cruikshank, 1994; Dean, 1999), aimed at the city government popularity to gain public sympathy. However, the relationship between the Mayor's preferences and spending can be understood as a mutual relationship (Hill & Hurley, 1999; Wlezien, 2003).

The timing of the prostitution removal in Surabaya overlapped with the upcoming Mayoral elections in 2015. It is likely that the incumbent Mayor's responsiveness to the wishes of political elites was caused by her power insecurity, or the worry of being overtaken in the next election in Surabaya (Ferejohn, 1986; Hobolt & Klemmensen, 2005). However, the Mayor had an interest in attracting public sympathy to show that she was powerful and capable of closing the practice of prostitution in the City of Surabaya. At the same time, numerous Islamic groups wanting prostitution removal were used by the Mayor to maximize

her political interests. The support of the powerful Islamic groups certainly gave her strength to implement the policy for closing the prostitution in accordance with her platform. However, Muslim social and political movements were pushed not only by political repression for many years under the Suharto's New Order, but also by religious responsibility, that to practice Islam in social interaction is part of Islamic preaching-*dakwah* (Zarkasyi, 2008).

For her interests to be considered legitimate, she used the Surabaya city regulation made in 1999 as the basis for her actions. Even the national regulation prohibiting the practices of prostitution had been in place since 1984. However, the regulations had never been implemented by the Surabaya Mayors before. This is because prostitution, a very profitable business that needs low-skills but is well paid (Edlund & Korn, 2002), was deliberately left as an activity that benefited many parties, including serving as one of the sources of income for some elites. This is the reason why prostitution was hard to eradicate from Surabaya City.

## CONCLUSION

The city government realized that prostitution is a complex problem; many issues are related to it and conflicting reasons are required to be carefully considered. However, the city government preferred using law as the basis for defining prostitution as a public problem, instead of finding the root of reasons for people to get involved in prostitution in the first place.

Thus, the prostitution removal actions were a somewhat inappropriate solution, since they did not resolve the essence of the problem. Moreover, the empowerment program for former procurers and prostitutes failed, since it could create dependency, and it did not entirely meet the essence of empowerment.

Since prostitution is a complex problem, it requires collaborative governance, instead of a single action by the city government, which tends to practice an authoritative top-down approach. Although this kind of approach is believed to be efficient in dealing with prostitution, it failed to accommodate all conflicting stakeholders' interests; therefore, the problem was not entirely resolved.

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## **Efficiency of Cruise Port Management: A Comparison of Phuket and Singapore**

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### **ABSTRACT**

Cruise tourism has expanded to the Asian region, using larger cruise ships to serve new targets. Therefore, ports are one of the most important factors involved. Thus, the objective of this study is aimed at investigating and comparing cruise port management systems between Phuket and Singapore, employing quantitative research methods. The empirical findings showed that the top five biggest gaps regarding two cruise port management examples were port infrastructure, port facility, political stability, cruise tourism policy and cleanliness in rank. The results revealed that port management in Singapore was more efficient than in Phuket in most variables; however, tourism attractions, tourism activity, service providers, value for money, climate/sea conditions, and immigration formalities of Phuket were slightly better than that in Singapore.

*Keywords:* ASEAN cruise port, cruise port comparison, efficiency of cruise port, Phuket, port management, Singapore

### **INTRODUCTION**

Cruise tourism has grown most rapidly over many decades (Wang, Jung, Yeo, & Chou, 2014; Pinnock, 2014; Chen, 2016) with an average of 7.2% growth rate yearly (Florida-Caribbean Cruise Association [FCCA], 2014) as shown in Figure 1. Asia,

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as an emerging region, has recently become a popular destination (Xiaodong, Xuegang, & Gauri, 2014; Chen, 2016) with double-digit rates both in capacity and passengers (Cruise Lines International Association [CLIA], 2014) especially for new target groups from Asia (Travel Weekly Australia, 2006; Stieghorst, 2012; Drillinger, 2014), sharing the economic benefits not only for cruise lines but also the destination or port in particular.

Asia, the fastest growing region, is classified into three sub regions: 1) East Asia, 2) South Asia, and 3) Southeast Asia (Cruise Lines International Association [CLIA], 2016). The main reason of its growth is that Chinese tourists are the emerging target group for cruise tourism in Asia (Xiaodong et al., 2014). UNWTO (2016) estimated that 8 million cruise passengers will come from Asia and 50% will be from China in 2020. Hence, major cruise lines, e.g., Royal Caribbean Cruises, Costa Cruises, and Celebrity Cruises have shifted some fleets to be based in Asia to bring cruise ships close to target markets (Mathisen, 2014), while the Florida-Caribbean Cruise Association affirmed that cruise lines deployed 6% of capacity share in Asia in 2015 (Florida-Caribbean Cruise Association (FCCA), 2014, p. 3). In addition, other reasons enhancing the growth in Asia are varied, e.g., exotic ports, connectivity from home to homeport, value for money, growth of regional market, diverse tourism products, safety, friendly weather, and sea conditions for year round cruising (Cruise Lines International Association [CLIA],

2014; Drillinger, 2014; Monpanthong & Choibamroong, 2015).

Likewise, the paradigm of cruise tourism has shifted as summarized in Table 1; the cruise phenomenon has also changed, e.g., lower priced cruise packages, larger cruise ships (Bayley, 2009; Carnival Corporation and PLC, 2012; Economic Commission for Latin America and the Caribbean [ECLAC]), 2005; European Commission, 2009; Hull & Losekoot, 2012; Port-Net, 2007; Royal Caribbean Cruises Limited [RCCL], 2014; TEC inc, 2007; UNWTO, 2011), higher demand of exotic ports, diverse cruise itinerary (Cruise Lines International Association [CLIA], 2014) and duration of cruise itinerary (European Commission, 2009; Hull & Losekoot, 2012; Pavlic, 2013), around 2-5 days (CRISIL, 2005).

As aforementioned, ports are a vital part in the cruise tourism value chain that motivates cruise lines to be added to the cruise itinerary and attracts potential clients to cruise (Gibson, 2012). According to the significant growth of cruise tourism worldwide, the efficient ports are in greater demands to make the cruise itinerary more attractive. Therefore, many ports have improved themselves (Brida, Pulina, Riaño, & Zapata-Aguirre, 2012; Wang et al., 2014) in seeking cruise traffic. Even though the major obstacle of certain ports in Asia is low infrastructure development, especially those in the Southeast Asian region, port development does not focus only on infrastructure, facility or safety, but involves various factors to drive

competitiveness, e.g., tourist attractions, tourist activity, sanitation, services, and immigration formalities. Evidently, some old ports, e.g., Singapore and Hong Kong have expanded their capacity to take advantage as first movers. They have been hubs of cruise tourism in Asia while new ports are being developed to respond to the growth of cruise tourism in Asia, e.g., China and Korea (Stieghorst, 2012).

The Southeast Asian region has served cruise tourism for over three decades, consisting of a number of popular ports. Singapore acts as the leading homeport or gateway, making diverse cruise itineraries within this area while other ports including Phuket are the ports of call, offering unique experiences for cruise passengers. Singapore has been rated one of the best cruise ports due to its infrastructure development (Cruise Industry News Quarterly, 2012; Cruise Industry News Quarterly, 2014b; Mathisen, 2010), policy, tourism products (Lyons, 2003), and port management (Braine, 2008; Mathisen, 2010; Pacific Asia Travel News – Americas, 1995). A new cruise port was built at Marina Bay where the channel is deeper with wider turning basin to accommodate mega cruise ships (Braine, 2008; CRISIL, 2005; Cruise Industry News Quarterly, 2014a) as the old one is located at the dead-end channel with obstacles to mega cruise ships (Stieghorst, 2012). It had 111 scheduled calls from 2013- 2014 and increased to 374 in 2015 and 391 in 2016 (Cruise Lines International Association [CLIA], 2016) and expects more cruise calls in the following years. With this regard,

Singapore port management serves as a benchmark for other ports.

Thailand has become one of the most preferred ports in the Southeast Asian region as it offers dominant tourism products and services. Definitely, Phuket has been Thailand's most popular cruise port for over three decades, serving several cruise lines. After the strong demand of Phuket port since 2010, two temporary pontoons have been provided at Patong Beach, serving large and mega cruise ships during the summer season in addition to Phuket Deep Sea Port, which has no capacity to accommodate large cruise ships. Even Phuket port always serves as a port of call for many cruise ships, several obstacles discourage the growth of cruise tourism (Monpanthong & Choibamroong, 2015).

Referring to Figure 2, five countries in the Southeast Asian region have been among the top 10 most visited ports in Asia. When we look closer, the number of cruise-calls in Thailand has decreased since 2015. Most countries in East Asia have higher growth rates compared with those in the Southeast Asian region as ports in East Asia have been developed holistically. In contrast, only Singapore has intensively developed the port solely in the Southeast Asian region for being a homeport while other ports have not put enough effort in cruise development. Therefore, it has created obstacles for large cruise ships to have ports of call added to the cruise itinerary. In this regard, ports in the Southeast Asian region should compare port management systems with Singapore to explore new strategies to develop.

Referring to the research interest on cruise tourism, most studies focused on various areas, e.g., cruise passengers' behavior and experiences (Andriotis & Agiomirgianakis, 2010; Duman & Mattila, 2005; Gabe, Lynch, & McConnon, 2006; Jones, 2011; Petrick, 2005; Petrick, 2011; Sangchoul, Jonathon, & Liping, 2014), cruise product development (Cai & Shi, 2013), marketing Petrick, 2005, 2011, major ports in other regions (Andriotis & Agiomirgianakis, 2010; Brida, Chiappa, Meleddu, & Pulina, 2014; Caribbean Tourism Report, 2014; Gabe et al., 2006; Lawrey, 2015), and impacts from cruise development (Hritz & Cecil, 2008; Klein, 2011). Certain studies about Asian ports can be found, but mainly about Chinese ports (Cai & Shi, 2013). However, few studies have focused on cruise tourism in the Southeast Asia region, particularly highlighting the efficiency assessment. Therefore, the results of this study will benefit Phuket port, in particular, for its further improvement in responding to the growth of cruise tourism. Furthermore, Singapore will benefit from a higher number of cruise calls when other ports in the region are developed.

In accordance with 28 studies reviewed to extract the variables of port management to be used for the questionnaire design, 35 variables related to port management were selected as shown in Table 2. The focus group discussion with cruise experts in Phuket regarding the 35 variables produced 22 variables classified into four factors, namely, 1) Tourism Products & Services, 2) Safety Issues, 3) Port Operations, and 4) Cruise Tourism Mechanisms as shown in Table 3. The cruise experts in Phuket consisted of six persons which are; 1) Representative from Travel Agency, 2) Representative from Tourism Authority of Thailand, 3) Cruise Tourism Lecturer, 4) Shipping Agent, 5) Port Executive, and 6) Representative from Phuket Tourism Business Association. Thus, the objective of this study was to investigate and compare the efficiency of Phuket and Singapore port management systems. The scope of port management in this study is not only port area but refers to the destination as a whole.

## MATERIALS AND METHODS

Quantitative research methods were employed in this study, investigating and

Table 1  
*Global cruise circumstance and Southeast Asia cruise tourism*

Global Cruise Circumstance	Southeast Asia Cruise Tourism
Larger size of cruise ship	Lack of infrastructure at certain ports
Multi-generational mix as a new target	Diverse tourism products at most ports fulfilled all demands
Shorter cruise itinerary	Proximity between ports
Higher demand of exotic ports	Various exotic and unique ports
Growth of Chinese market	Easy access from any Asian countries to homeport Tourism products suit the preference of Chinese.
Lower rate of cruise package	Higher value for money at most ports
Require year-round cruising	Possibility of cruising year-round

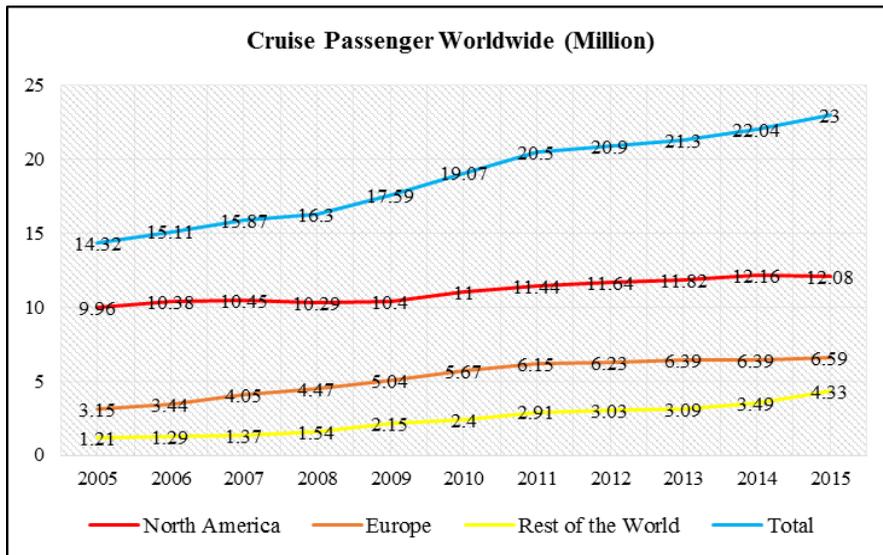


Figure 1. Number of cruise passenger worldwide  
Source: Statista (2016)

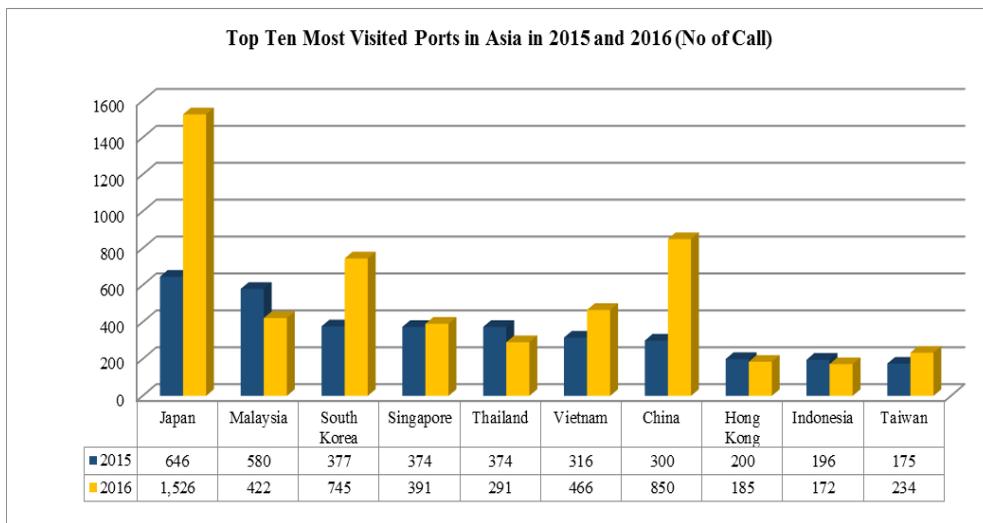


Figure 2. Top ten most visited ports in Asia in 2015 and 2016  
Source: Cruise Lines International Association [CLIA] (2016)

Table 2  
Variables of port management (28 Studies)

Author/Year/Variables	Tourist Attraction	Tourism Activity	Tourism Amenity	Accommodation	Service	Shore Excursion	Shore Excursion Agent	Value for Money	Experience	Suitable Cruise Itinerary	Safety & Security	Hygiene & Sanitation	Emergency Plan	Connectivity (Air-Sea)	Connectivity with ports	Proximity from Home to Homeport	Accessibility	Nautical Access	Infrastructure & Facility	Port Characteristic	Season & Sea Conditions	Port Operations	Welcome Ceremony at Pier	Information & Directional Signage	Port Fee	Cruise Terminal	Immigration Procedure	Regulation	Political Stability	Policy / Politic	Carrying Capacity	Stakeholder Involvement	Shipping Agent	Reputation of Port	Community Acceptance				
McCalla, 1997				✓												✓																							
ASEAN, 2002	✓		✓	✓							✓			✓				✓	✓	✓					✓	✓													
Pizam & Fleischer, 2002											✓																	✓											
Neumayer, 2004											✓																✓												
Tonzon & Heng, 2005					✓																																		
Dowling, 2006								✓																															
Ontario Ministry of Tourism, 2006	✓	✓	✓				✓			✓	✓																✓												

Table 2 (Continue)

Author/Year/Variables	Tourist Attraction	Tourism Activity	Tourism Amenity	Accommodation	Service	Shore Excursion	Shore Excursion Agent	Value for Money	Experience	Suitable Cruise Itinerary	Safety & Security	Hygiene & Sanitation	Emergency Plan	Connectivity (Air-Sea)	Connectivity with ports	Proximity from Home to Homeport	Accessibility	Nautical Access	Infrastructure & Facility	Port Characteristic	Season & Sea Conditions	Port Operations	Welcome Ceremony at Pier	Information & Directional Signage	Port Fee	Cruise Terminal	Immigration Procedure	Regulation	Politic Stability	Policy / Politic	Carrying Capacity	Stakeholder Involvement	Shipping Agent	Reputation of Port	Community Acceptance		
Tourism Queensland, 2006	✓				✓			✓	✓								✓																				
Port-Net, 2007			✓				✓				✓			✓				✓																			
TEC inc, 2007						✓										✓																					
Magala & Sammons, 2008					✓															✓																	
European Commission, 2009			✓													✓																					
Tan, 2009	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Lekakou, Palli, & Vaggelas, 2009	✓		✓		✓			✓			✓																										

Table 2 (Continue)

Author/Year/Variables	Tourist Attraction	Tourism Activity	Tourism Amenity	Accommodation	Service	Shore Excursion	Shore Excursion Agent	Value for Money	Experience	Suitable Cruise Itinerary	Safety & Security	Hygiene & Sanitation	Emergency Plan	Connectivity (Air-Sea)	Connectivity with ports	Proximity from Home to Homeport	Accessibility	Nautical Access	Infrastructure & Facility	Port Characteristic	Season & Sea Conditions	Port Operations	Welcome Ceremony at Pier	Information & Directional Signage	Port Fee	Cruise Terminal	Immigration Procedure	Regulation	Politic Stability	Policy / Politic	Carrying Capacity	Stakeholder Involvement	Shipping Agent	Reputation of Port	Community Acceptance				
London, 2010						✓		✓			✓				✓																								
UNWTO, 2010									✓																														
Scarft, 2011																																							
PATA, 2011																																							
Rodrigue & Notteboom, 2012										✓																													
Gibson, 2012	✓																																						
Cruise Gateway North Sea, 2012	✓																																						
Hawke, 2012																																							
Brida et al., 2012	✓																																						
UNWTO, 2013																																							

Table 2 (Continue)

Author/Year/Variables	Pavlic, 2013	Busby & O'Neill, 2013	Tongzon & Heng, 2013	Sangchoul et al., 2014
Tourist Attraction	✓	✓	✓	✓
Tourism Activity	✓	✓	✓	✓
Tourism Amenity	✓			
Accommodation				✓
Service				✓
Shore Excursion				
Shore Excursion Agent				
Value for Money	✓		✓	✓
Experience			✓	✓
Suitable Cruise Itinerary	✓			
Safety & Security	✓			
Hygiene & Sanitation				
Emergency Plan				
Connectivity (Air-Sea)		✓		
Connectivity with ports	✓			
Proximity from Home to Homeport			✓	
Accessibility	✓		✓	
Nautical Access	✓			
Infrastructure & Facility	✓		✓	
Port Characteristic			✓	
Season & Sea Conditions			✓	
Port Operations			✓	
Welcome Ceremony at Pier				
Information & Directional Signage				
Port Fee			✓	
Cruise Terminal				
Immigration Procedure				
Regulation				
Politic Stability				
Policy / Politic		✓	✓	
Carrying Capacity		✓	✓	
Stakeholder Involvement				
Shipping Agent				
Reputation of Port			✓	
Community Acceptance	✓			

Table 3  
*Factors and variables of port management*

Factors	Variables
1. Tourism Products and Services (Six variables)	Tourism Attraction Tourism Activity Tourism Amenity Service Provider Shore Excursion Management Value for Money
2. Safety Issues (Six variables)	Safety and Security on Shore Health and Sanitation Cleanliness Emergency Plan Political Stability Climate and Sea Conditions
3. Port Operations (Six variables)	Connectivity Accessibility Port Facility Port Characteristic Port Management Port Infrastructure
4. Cruise Tourism Mechanisms (Four variables)	Immigration Formality Cruise Tourism Policy Collaboration of Stakeholder Social Acceptance
<b>Total four factors</b>	<b>Total 22 variables</b>

comparing the efficiency of Phuket and Singapore port management systems from the perspective of cruise passengers who experienced both ports. The research data was collected at Phuket Port in 2015.

### Unit of Analysis

According to Cruise Lines International Association [CLIA] (2014), four Thai major ports serve cruise tourism. Phuket Port is in

Andaman Sea while Koh Samui Port, Leam Chabang Port and Klong Teoi Port are in the Gulf of Thailand. Referring to Cruise Lines International Association [CLIA] (2016), Phuket Port known as Patong Beach Port was the most visited port in Thailand, having 140 ship calls in 2015 but it unbelievably went down to 90 calls in 2016 (Figure 3). However, Singapore Port received the highest number of cruise-calls in 2015 (Cruise Lines International Association [CLIA], 2016) and was known as one of the world's leading cruise ports. These two ports are located in the same cruise routing and both can be added to the same cruise itinerary. Thus, Phuket was selected to compare its efficiency with Singapore port. To do so, data was collected from cruise passengers at Phuket port.

### Population

The population of this study comprised cruise passengers who experienced both Singapore and Phuket ports. According to the Phuket Immigration Office (2015), the cruise ships that visited Singapore and Phuket ports carried 170,890 individuals in 2014. The population has been categorized in four groups, using the ship size as the criterion.

### Sample Size and Sampling Techniques

Quota and convenient sampling techniques were applied to determine cruise passengers from all ship sizes. Referring to the number of cruise passengers visiting Singapore and Phuket Port in 2014, i.e., 170,890 individuals, a sample size was calculated

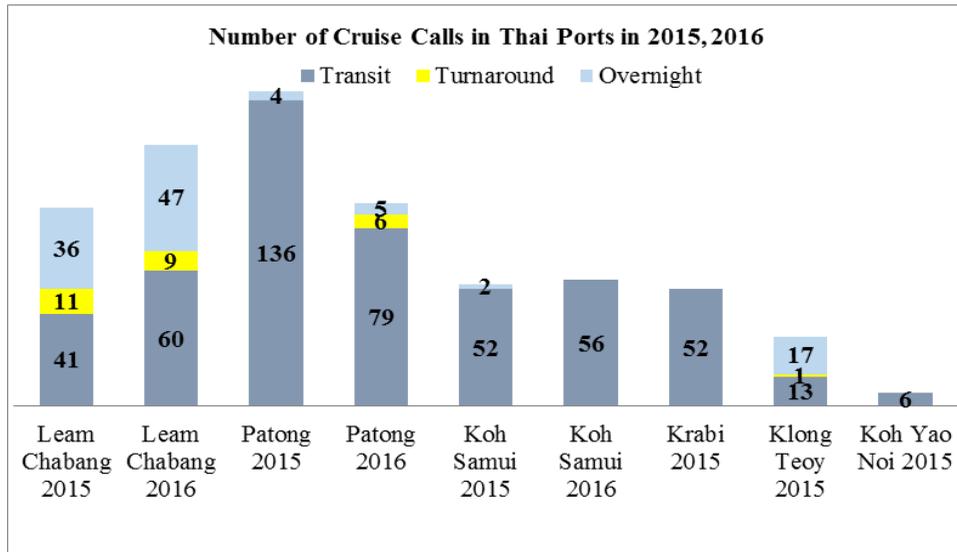


Figure 3. Number of cruise calls in Thai ports in 2015 and 2016  
 Source: Cruise Lines International Association [CLIA] (2015, 2016)

using the sample size of Yamane (1973) at a 95% significance level, which resulted in a sample size of 399 in this particular study. To minimize bias, 100 individuals represented the population of each ship size, referring to ship sizes categorized by Gibson (2012), namely, 1) small size from 3,000-30,000 Gross registered Tonnage or GRT, 2) midsize from 30,001-70,000 GRT, 3) large size from 70,001-90,000 GRT, and 4) mega cruise ship from 90,001 onward. Therefore, the appropriate sample size was 400.

**Research Tools and Data Analysis**

To meet the study objective, a close-ended questionnaire was critically designed to obtain data from cruise passengers, using a six-item Likert scale to avoid the median. It was analyzed with regards to validity and reliability. The results of content

validity were measured by the Index of Item Objective Congruence (IOC), showing scores from 0.80-1.00. The reliability was tested with 30 respondents, resulting in an alpha coefficient of 0.965. Data was collected at port in Phuket from cruise passengers who had already experienced Singapore and Phuket ports before boarding the cruise ships. The data was finally analyzed by paired sample correlation tests.

**RESULTS AND DISCUSSION**

The efficiency of port management was assessed by cruise passengers who experienced both ports. The results and discussion are presented below.

**Efficiency of Phuket and Singapore Port Management Systems**

The results, in general, revealed that port management in Singapore was more

efficient than in Phuket including most factors especially port operations, safety issues as well as cruise tourism mechanisms. In contrast, Phuket had higher efficiency concerning tourism products and services than Singapore.

#### **Tourism Products and Services.**

Referring to tourism products and services (Table 4), the results reflected the strengths of Phuket over Singapore, which has greater tourism attractions, tourism activity, service providers as well as value for money, while tourism amenity of Singapore ( $\bar{x}=5.16$ ) was more efficient than Phuket ( $\bar{x}=4.44$ ), showing the highest gap. Apparently, tourism products and services at port are the major factors involving decision making of potential clients to cruise, as stressed in certain studies (Brida et al., 2012; Busby & O'Neill, 2013). Therefore, cruise lines are concerned more about selecting ports where tourism attractions and activities are diverse (Cruise Gateway North Sea, 2012; Gibson, 2012), unique (Tongzon & Heng, 2005), worth visiting (Busby & O'Neill, 2013) and suitable for all targets (Tan, 2009; Tourism Queensland, 2006) as the new target groups of cruise tourism constitute a multigenerational mix.

In conclusion, Phuket's tourism products and services serve as a magnet to attract cruise ships to its port while Singapore needs to enhance service quality and value creation to offer a higher quality experience to cruise passengers.

**Safety Issue.** Safety is the first priority in the context of cruise tourism both onboard

and onshore as cruise tourism is affected by weather, sea conditions, piracy and terrorism (Busby & O'Neill, 2013; Gibson, 2012). Therefore, cruise lines take it seriously that the ports selected should be assured on safety matters when designing the cruise itinerary under the regulations of the International Maritime Organization (IMO). Additionally, safety at port is assessed by International Ship and Port Facility Security Code (ISPS Code). The safety issue also concerns natural disasters, sanitation (Gibson, 2012), cleanliness (Dowling, 2006; Tan, 2009) and political stability (Monpanthong & Choibamroong, 2015). Therefore, emergency plans are vital for protection from unexpected matters.

The results revealed that the safety issue of both ports is efficient in general (Table 5). However, Singapore delivered a much higher safety assurance regarding cruise passengers, than Phuket did. Radically, the political stability of Phuket was perceived as somewhat efficient ( $\bar{x}=3.73$ ) because Thailand has long been involved with national political uncertainty that inevitably affects the image of Phuket even though far.

**Port Operations.** Ports are vital for cruise tourism because the size of the cruise ships has become larger than ever while cruise itineraries have become shorter, and cruise fares have decreased (Gibson, 2012). Nevertheless, port operations, unlike before, have many concerns, e.g., infrastructure, facilities, and geographic location which ships can access easily or even involving distance between ports.

Therefore, well developed ports with good facilities and infrastructure are in greater demand, especially for large cruise ships.

The results in Table 6 showed that Singapore has very efficient port operations while Phuket, in contrast, is not efficient in terms of port facility ( $\bar{x}=3.44$ ) and infrastructure ( $\bar{x}=3.37$ ). Undeniably, they are strong requirements under the new paradigm of global cruise tourism to provide safety and convenience for cruise passengers. Currently, Singapore has built a new state-of-the-art port at Marina Bay which can accommodate larger cruise ships (Mathisen, 2010) while Phuket has set up a temporary pontoon where large cruise ships anchor off outside. Thus, cruise passengers are transferred to shore (using the beach

as an assembly area for shore excursions without a passenger terminal) by the shore tender boat which might leave the cruise passenger unsatisfied.

**Cruise Tourism Mechanisms.** Tourism mechanisms are critical in driving cruise tourism successfully. It requires various actors to become involved to drive it. The results showed that Singapore had higher efficiency than Phuket, especially regarding cruise tourism policy and collaboration of stakeholders (Table 7). Singapore implemented cruise tourism development long ago while Phuket has only recently initiated the policy in driving cruise tourism under the current military government according to the Thailand National Tourism Development Plan (volume 2) which will

Table 4  
*Efficiency of tourism products and services of Singapore and Phuket*

Tourism Products and Services	Performance of Singapore Port			Performance of Phuket Port			Gaps (Singapore-Phuket)	correlation	t	Sig.
	Mean	SD	Meaning	Mean	SD	Meaning				
Tourism attraction	4.64	0.90	efficient	5.09	0.80	efficient	-0.45	0.17 (.001*)	-8.15	.000
Tourism activity	4.62	0.83	efficient	5.03	0.81	efficient	-0.41	0.13 (.008*)	-7.51	.000
Tourism amenity	5.16	0.77	efficient	4.44	0.84	efficient	0.72	0.09 (.077)	13.18	.000
Service provider	4.33	1.03	somewhat efficient	5.09	0.72	efficient	-0.76	0.08 (.110)	-12.16	.000
Shore excursion management	4.86	0.80	efficient	4.84	0.81	efficient	0.02	0.36 (.000*)	0.44	.658
Value for money	4.10	1.07	somewhat efficient	5.08	0.80	efficient	-0.98	0.12 (.020*)	-15.58	.000

become effective from 2017-2021 (Thailand National Tourism Policy Council, 2017).

Previously, cruise tourism in Phuket was driven aimlessly by the private sector and with lack of support from responsible public sectors. Cruise tourism policy of Phuket was rated at somewhat efficient ( $\bar{x}=4.26$ ) and similarly, collaboration of stakeholders was somewhat efficient ( $\bar{x}=4.30$ ). Notably, the immigration formalities in Phuket ( $\bar{x}=5.26$ ) had higher efficiency than Singapore ( $\bar{x}=5.21$ ). The procedures of immigration in Phuket are simplified by allowing the cruise passengers to disembark after ship arrival without queuing (Monpanthong & Choibamroong, 2015).

### Comparison of Phuket and Singapore Port Management by Gap Analysis

To identify the efficiency of port management of Phuket and Singapore, the gaps between these two port management systems should be explored. The gaps are crucial in identifying how port management issues should be prioritized for improvement. As Singapore is the leading port in the Southeast Asia region, Phuket should compare its port management with Singapore. The results presenting the widest gap can be used as data to be considered for development, though the narrowest gaps remain.

Table 5  
*Efficiency of safety issues of Singapore and Phuket*

Safety Issues	Performance of Singapore Port			Performance of Phuket Port			Gaps (Singapore-Phuket)	correlation	t	Sig.
	Mean	SD	Meaning	Mean	SD	Meaning				
Safety & security	5.63	0.60	extremely efficient	5.01	0.86	efficient	0.61	0.38 (.000*)	14.48	.000
Health & sanitation	5.55	0.58	extremely efficient	4.78	0.89	efficient	0.77	0.33 (.000*)	17.27	.000
Cleanliness	5.71	0.55	extremely efficient	4.62	0.95	efficient	1.09	0.26 (.000*)	22.64	.000
Emergency plan	5.19	0.69	efficient	4.55	0.87	efficient	0.64	0.43 (.000*)	14.94	.000
Political stability	5.55	0.67	extremely efficient	3.73	1.13	somewhat efficient	1.83	0.00 (.950)	27.82	.000
Climate/sea condition	5.00	0.70	efficient	5.08	0.83	efficient	-0.09	0.34 (.000*)	-1.98	.048

**Gap Analysis of Tourism Products and Services of Phuket and Singapore.** Figure 4 illustrates the gaps of tourism products and services between these two ports. The

results showed that value for money, service provider, tourism attraction and tourism activity of Phuket were more efficient than in Singapore. In serious contrast, tourism

Table 6  
*Efficiency of port operations of Singapore and Phuket*

Port Operations	Performance of Singapore Port			Performance of Phuket Port			Gaps (Singapore-Phuket)	correlation	t	Sig.
	Mean	SD	Meaning	Mean	SD	Meaning				
Connectivity	5.19	0.66	efficient	4.45	0.88	efficient	0.74	0.29 (.000*)	15.83	.000
Accessibility	5.21	0.62	extremely efficient	4.66	0.94	efficient	0.55	0.24 (.000*)	11.11	.000
Port facility	5.51	0.75	extremely efficient	3.44	1.10	somewhat inefficient	2.07	-0.01 (.776)	31.03	.000
Port characteristic	5.29	0.67	Extremely efficient	4.72	0.96	efficient	0.57	0.26 (.000*)	11.01	.000
Port management	5.23	0.63	extremely efficient	4.45	0.90	efficient	0.78	0.24 (.000*)	16.18	.000
Port infrastructure	5.57	0.70	extremely efficient	3.37	1.09	somewhat inefficient	2.20	-0.04 (.402)	33.39	.000

Table 7  
*Efficiency of cruise tourism mechanisms of Singapore and Phuket*

Cruise Tourism Mechanisms	Performance of Singapore Port			Performance of Phuket Port			Gaps (Singapore-Phuket)	correlation	t	Sig.
	Mean	SD	Meaning	Mean	SD	Meaning				
Immigration formality	5.21	0.75	extremely efficient	5.26	0.84	extremely efficient	-0.05	0.29 (.000*)	-1.21	.227
Cruise tourism policy	5.40	0.74	extremely efficient	4.26	0.94	Somewhat efficient	1.14	0.19 (.000*)	21.09	.000
Collaboration of stakeholders	4.71	0.79	efficient	4.30	0.87	Somewhat efficient	0.41	0.42 (.000*)	9.09	.000
Community acceptance	4.72	0.82	efficient	4.42	0.92	efficient	0.30	0.47 (.000*)	6.75	.000

amenity and shore excursion of Singapore were more efficient than in Phuket.

When considering these issues superficially, tourism amenity (Gap = 0.72) should be improved as the first priority when compared with Singapore even though it was efficient ( $\bar{x}=4.44$ ). In addition, the gaps of other variables showed that Phuket was more efficient than Singapore.

**Gap Analysis of Safety Issue of Phuket and Singapore.** Turning now to safety issues, six variables are shown in Figure 5. Safety is, particularly, the most important factor that motivates people to cruise as per various studies (Bateman, 2010; Busby & O'Neill, 2013; European Commission, 2009; Gibson, 2012; Port-Net, 2007; Tongzon & Heng, 2005; Tarlow, Korstanje, Amarin, & Gandara, 2012).

The results of this study demonstrated that most variables under safety issues of Singapore were more efficient than in Phuket, except climate/sea conditions. The widest gaps comprised political stability, cleanliness, health and sanitation, emergency plan and safety, and security in rank. However, most variables of Phuket port were still efficient even when a big gap was observed compared with Singapore. Inevitably, Phuket has to put more effort in the negative perceptions concerning the political situation, as it has negatively affected the image which cruise passengers perceived as insecure. Thus, political image should receive a more intense scrutiny.

**Gap Analysis of Port Operations of Phuket and Singapore.** Ports had fewer concerns in the past decades as

cruise ships were small. It only acted as a gateway leading to the tourist attractions. Currently, port operations are the most serious concerns when analyzing port management. Therefore, ports have become more significant for cruise tourism due to the larger cruise ships and higher number of cruise passengers. Many vital criteria are used by cruise liners for port selection. In this regard, many countries have spent huge amounts on port development. Port operations involve not only hardware, e.g., port infrastructure or facility, but accessibility to major attractions or towns, connectivity between ports, port management or even its characteristics.

According to the results, most variables showed substantial gaps between Phuket and Singapore (Figure 6). Port operations were the greatest strengths of Singapore cruise tourism. Undoubtedly, it has continued to be one of the world's best cruise ports. In comparison with these two ports, port infrastructure and port facility are the most critical issues for Phuket as these two variables displayed the widest gaps. Therefore, urgent development on this particular issues for Phuket Port should be the concern. While other variables, e.g., accessibility, connectivity, and port management, were acceptable as they were rated at efficient levels even though some gaps were observed when compared with Singapore.

**Gap Analysis of Cruise Tourism Mechanisms of Phuket and Singapore.** Tourism mechanisms do not directly affect cruise passengers, but these are

basic elements to drive cruise tourism sustainably. As aforementioned, cruise tourism mechanisms require strategic policy and planning with diverse actors involved; the public sector actually acts as a leader while the private sector is the driver and the local community is the base. When the mechanisms are well settled, cruise tourism development will benefit everyone at the destination.

The results shown in Figure 7 indicated that Singapore had higher efficient cruise tourism mechanisms than Phuket, in general. Surprisingly, immigration formalities of Phuket showed slightly higher efficiency than Singapore because cruise passengers were allowed to disembark the ship without queuing for passport check. Cruise tourism policy of Singapore is, indeed, much stronger than Phuket. Logically, Singapore has developed cruise tourism proactively for years and has become the hub of cruise tourism in the Southeast Asian region while Thailand has implemented no policy on cruise tourism development as cruise passengers are not counted as tourist arrivals in statistics.

## CONCLUSIONS

Cruise tourism has grown significantly, especially in Asia, regarding two aspects; cruise ships and passengers. Its circumstances have changed radically over the decades, e.g., size of cruise ship, target markets, cruising rates, and cruise itinerary. Thus, ports are vital factors required to improve, to respond to the changing

circumstances mentioned above. Efficient port management is important not only to satisfy cruise passengers but also cruise lines which finally drives the port more competitively. In cruise context, onboard cruise management and port management are integrated links to delivering the total experience to cruise passengers. Therefore, cruise lines play their roles to create experiences for cruise passengers and require the port to offer the best experiences for cruise passengers in parallel. Nevertheless, few studies have been conducted on port management in Thailand; studies focusing on port management comparisons showing areas of improvement should drive and attract cruise lines to the region. Thus, the aim of this study was to investigate the efficiency of both port management systems as Phuket and Singapore are interdependent in bundling two ports in one cruise itinerary.

The core concepts from these findings in developing cruise tourism are that it should provide port infrastructure, port facilities and amenities for the comfort, convenience and safety of the cruise passengers. In addition, political turmoil affected the image of the destination, therefore, the government should pay more attention to this matter as the country relies on tourism. The cruise tourism policy should be initiated and balanced between promoting cruise tourism and protecting the destination. To sustain Phuket from cruise tourism over development, all actors should be involved, especially residents and indigenous people, who are strongly required in the planning and management process. In conclusion

from gap analysis, Phuket port should focus on the inefficient areas which have wide gaps and benchmarks using the key success factors from Singapore to enhance its port management, which will drive the overall Southeast Asia region cruise tourism more competitively.

The recommendations for further research are to evaluate the efficiency of

other significant ports in Thailand e.g., Samui port and Leam Chabang port and to study how the collaboration network among ports in ASEAN region can be initiated in order to drive regional cruise tourism.

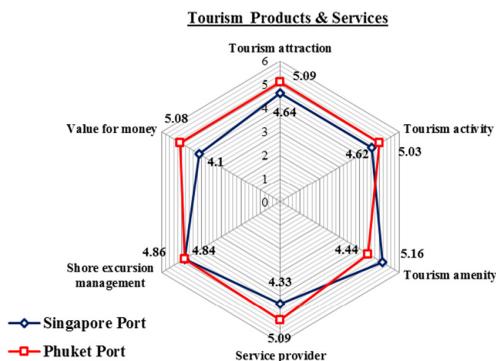


Figure 4. Gaps of tourism products and services between Phuket and Singapore

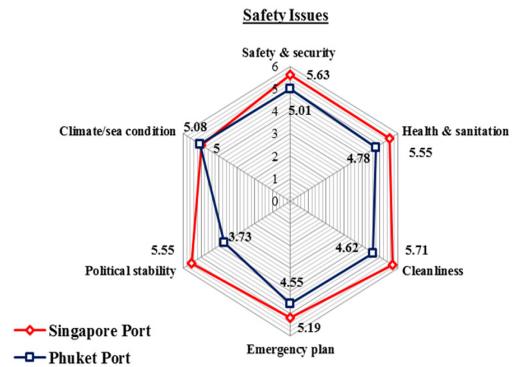


Figure 5. Gaps of safety issues between Phuket and Singapore

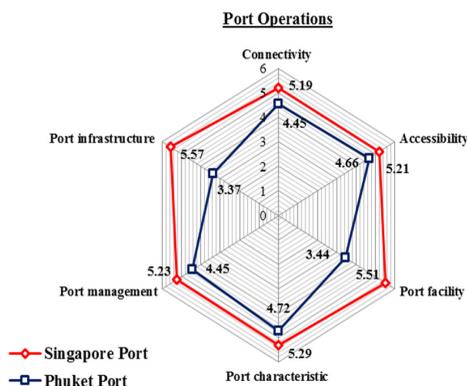


Figure 6. Gaps of port operations between Phuket and Singapore

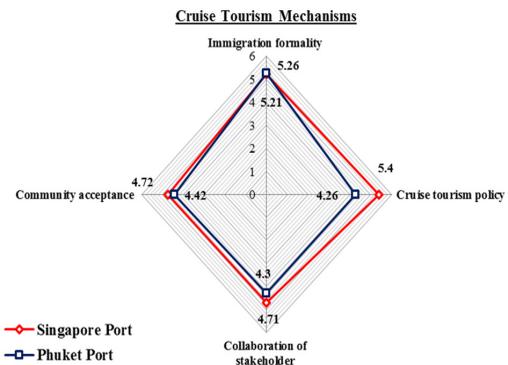


Figure 7. Gaps of cruise tourism mechanism between Phuket and Singapore

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## **The Influence of Marketing Mix Dimension on the Destination Image Dimension: A Case Study of Lake Toba, North Sumatera, Indonesia**

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### **Abstract**

This research is to test the influence of the marketing mix dimension, which consists of product, price, promotion, and place, on destination image dimension, which consists of cognitive image and affective image. The data collecting used questionnaire with 282 respondents with accidental sampling technique. The result of the test showed that product, promotion, and place directly related to cognitive image. In addition, affective image is also directly influenced by product, price and cognitive image. The result of the research also showed that promotion and location did not directly relate to affective image. In addition, the price did not directly relate to Cognitive Image. The result of this research also showed that the marketing mix dimension related indirectly to Affective Image by the variable of cognitive image. Among all dimensions of marketing mix, it is product, promotion, and place that relate to cognitive image. While product and price relate to affective image indirectly.

*Keyword:* Affective image, cognitive image, place, price, product, promotion

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### **INTRODUCTION**

Indonesia is an archipelago country that has a lot of tourism sites. Indonesia has both coast and lake tourism. One of the lakes is Toba. Toba lake is located in the province of North Sumatera. This province is close to Malaysia, Thailand and Singapore; a

situation which makes it one of government's priorities to develop. To improve the tourism site of Lake Toba is to pay attention to four aspects of marketing: Product, Place, Price, and Promotion, which influence the tourists' perception (Sanib, Aziz, Zaiton, & Rahim, 2013). Tourism sector should focus on improving and implementing a marketing strategy according marketing mix concept (Magatef, 2015). The marketing mix will make the tourists like to visit the site (Muala & Qurneh, 2012). The tourism who will visit would imagine the natural beauty of the lake toba tourist area. This natural beauty will create a destination image and intensify the fame of lake Toba. Creating destination image must be built from cognitive image and affective image (Basaran, 2016; Styliadis, Shani, & Belhassen, 2017). The destination image could be created from accepted various information, (Baloglu & McCleary, 1999) the beauty of nature, entertainment, cost, and good standard service (Govers & Go, 2003). A social marketing is strongly necessary to continuously invite tourists (Claire & Sargeant, 2000). This research observes the influence of marketing mix dimension on destination image dimension. This research tests the influence of marketing mix dimension on destination image dimension. The dimension of marketing mix consists of product, place, and promotion, while destination image dimension consists of cognitive image and affective image. In addition, this research also studies the association between cognitive and affective image which are parts of destination image dimension.

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

Managing tourism sites requires marketing mix or 4P's: product, promotion, place, and Price (Kotler & Zaltman, 1971). Product, promotion, place and price have something to do with creating customer value (Bennett, 1997). Product and place are important for creating value, while promotion and price are the process (Hakansson & Waluszewski, 2005). To design a marketing strategy is to combine the elements of the Marketing Mix so it gains a competitive advantage (Singh, 2012). Marketing Mix is part of social marketing (Gordon, 2012). The implementation of marketing mix can increase the number of customer (Saeidi Pour, Nazari, & Emami, 2013).

Tourism product is the satisfaction accepted by the tourists both physically and psychologically (Turtureanu, 2005). The product refers to physical product and service afforded by consumers (Singh, 2012). The product is divided into two kinds: physical and non physical (Arionesei & Ivan, 2014). Tourism product consists of five elements: physical plant, service, hospitality, and freedom to choose, and involvement (Smith, 1994). Physical plant is natural resources from infrastructure; Service can be seen from the performance of employees who give the service of tourism—whether the services satisfy the tourists. The service is also in line with hospitality people around of Lake Toba. In the tourism site, the tourists are also able to choose the vacation, business, or both. Involvement is a combination of physical plant, service and

freedom to choose (Smith, 1994). Physical plant is one of tangible product categories, while service, hospitality, freedom to choose, and involvement are intangible products.

Promotion is a strategy and idea variation which is implemented to encourage consumers to pay more attention to the product (Suherly, Affif, & Guterres, 2016). Promotion activity is meant to do public relation, personal sale, direct marketing, advertisement and publication (Ciriković, 2014; Singh, 2012). Promotion done by selling staffs can directly face the tourists who visit particular site. Advertisement can be done via television and internet.

Place is location visited by the tourists. Price is the cost between supply and demand that create the value because the visited location will benefit both the institution and local community for increasing their economy (Hakansson & Waluszewski, 2005). The tourists who visit particular tourism site will benefit the local community. The tourists will choose the site due to the physical location, and then the decision of the location is determined by service access (such as tourism guide, travel and agent) (Hirankitti, Mechinda, & Manjing, 2009).

Price is a determinant factor in the tourism industry since it connects the industry actors and the tourists who visit a site. Price is the amount paid by the tourists (Arionesei & Ivan, 2014). The price offered to the consumers involves the price of production based on consumers' perception; the higher the price, the better the quality (Ciriković, 2014). The price should be in

line with the accepted benefit (Bakutyte & Grundey, 2012). Therefore, the price offered in tourism industry should cover the production cost as well as fulfill the benefits accepted by the tourists.

Tourists usually visit a site with the reference of the promotion and then enjoy the tourism products on location. This tourism journey will give experience (Echtner & Ritchie, 1991; Vogt & Andereck, 2003) and this will form their cognitive image (Oliver, 1980). Natural views, such as tourism site, location, and local performance, will create cognitive image on visitors (Martin, Ignacio, & Bosque, 2008). In addition to cognitive image, promotion will also create affective image (Lin, Morais, Kerstetter, & Hou, 2016). By doing promotion, visitors will know whether or not a tourism site is interesting to visit. Attractiveness is part of affective image (Baloglu & Brinberg, 1997).

Destination image is an experience felt in a tourism destination (Tasci, 2007) and then told to others (Govers & Go, 2003). Destination image is the whole attributes/specialties which are so impressive to visit (Crompton, 1979) and relate to visitors' experience (Echtner & Ritchie, 1991). In addition, Phelps, (1986) stated that tourists' decision was usually based on perceived image on particular tourism site. Altogether, the attributes of an impressive tourism site will closely relate to tourists' decision (Keown, Jacobs, & Worthley, 1981). The tourism culture will also create a positive destination image (Kastenholz, 2010). Destination image involves cognitive aspect (Rajesh, 2013). Image has both cognitive

and affective components (Baloglu & Brinberg, 1997). Altogether, image is influenced by cognitive and effective aspects (Stylidis et al., 2017). Cognitive aspect is the perceived experience which matches the expectation about the tourism site (Oliver, 1980). Cognitive is the tourists' perceived knowledge and experience on location image they want to visit (Crompton, 1979). Tourists' knowledge about tourism destination, such as natural environment, local community, tourism management and improvement, will influence the tourists' behavior to visit particular tourism site (Lee & Lijia, 2006). Affective image is the feeling about the tourism site (Martin et al., 2008). Besides, affective image is influenced by the past experience of other visitors who have ever visited the site and want to visit it again (Pike & Ryan, 2004). The experience felt by the previous visitors is a part of promotion since the previous visitors will explain the condition of lake Toba tourist site to the tourists who want to visit it.

Affective Image is created by promotion, tourism products, location, and the hospitality of local community. (Martin et al., 2008). Interesting and pleasant location of a tourism site will create affective image on the tourists (Baloglu & McCleary, 1999). They will visit it to enjoy it. To gain this, a tourism site should have some attributes that can please and attract the tourists (Russell, 1980). The attributes are product or service, advertisement of tourism site, and location (Vareiro, Ribeiro, & Remoaldo, 2015). This means that visitors, or tourists, will feel the experience after visiting the tourist site. This experience

will become affective image to the visitors. Beside the marketing mix dimension, cognitive image is also necessary to create affective image (Stylidis et al., 2017). This is because the cognitive image relates directly to affective image (Baloglu & McCleary, 1999; Basaran, 2016; Stylidis et al., 2017).

Based on those literature review it can be concluded that facilities, tourism products offered and costs have a significant relationship to cognitive destination image (Hallmann, Zehrer, & Müller, 2015). Promotion has a significant relationship in improving cognitive destination image (Basaran, 2016). Furthermore, to be able to create affective image, visitors experience about the tourism area is required (Basaran, 2016).

Affective image is created by promotion, tourism products, location, and the hospitality of local community (Martin et al., 2008). From the literature review, it can also be seen that cognitive image is associated with affective image (Agapito, Oom do Valle, & Mendes, 2013; Baloglu & McCleary, 1999; Basaran, 2016; Stylidis et al., 2017).

This research will examine each dimension of marketing mix and destination image (Figure 1). The hypotheses of the research are as follow:

H1 : the product positively influences the Cognitive Image

H2 : the product positively influences the Affective Image

H3 : the promotion positively influences the Cognitive Image

H4 : the promotion positively influences the Affective Image

H5 : the Place positively influences the Cognitive Image

H6 : the Place positively influences the Affective Image

H7 : the Price positively influences the Cognitive Image

H8 : the Price positively influences the Affective Image

H9 : the Cognitive Image positively influences the Affective Image

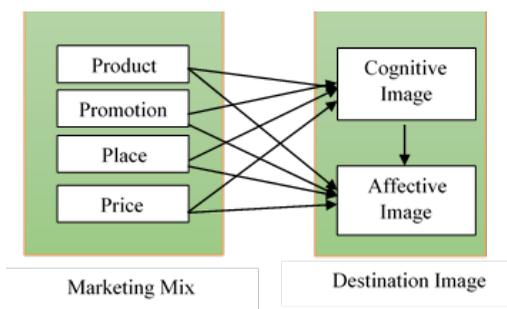


Figure 1. Conceptual framework

**METHODS**

This research tested the influence each dimension of marketing mix and destination image dimension. This research also tested the relationship of tourist image dimension between cognitive and affective image. The technique of data collecting was questionnaire and interview. The interview related to product, promotion, place, and price relating to cognitive image and affective image. Questionnaires related to product, promotion, place, and price, cognitive image and affective image. Each dimension was given two questions answered by the respondents. The questionnaire used Likert scale ranging from 1 to 5; 1 means strongly disagree, and 5 means strongly agree. The

questionnaire consisted of 10 questions in form of Likert scale and 2 questions of open questions. Respondents answered questions of Likert scale first and then they answered the open questions. The data collection was done by face-to-face interview; this was also the way to answer the open questions. The interview, as well as filling out the questionnaire, was done in all touristsite of lake Toba. After data collecting, the data was processed by *Partial Least Square* (PLS). The sample of this study was unknown, so the sample usage went into the non-probability sampling category. The use of non-probability sampling was using accidental sampling method. Furthermore, from the data collection conducted, there were 282 respondents who were willing to fill out questionnaires. While the result of open questions was used to support the research outcome.

**RESULT**

Based on the result of the conducted research, the profile of 282 respondents who filled out the questionnaires can be seen in the following Table 1:

Based on the Table 1, it can be seen that demographic factors such as age and education will affect the number of visits to tourist sites (Kreag, 2001). In line with that, it was found that the visitors who visited Lake Toba tourist area in North Sumatera were whose age of 17 – 23 years old and 24 – 30 years old. Moreover, from the educational aspect, the most visitors were high school to bachelor degree graduates. It was acknowledged from the interview

Table 1  
*Research respondents profiles*

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Men	149	52,8	52,8	52,8
	Women	132	46,8	46,8	99,6
Age	Between 17 - 23 Years Old	123	43,6	43,6	44,0
	Between 24 - 30 Years Old	95	33,7	33,7	77,7
	Between 30 - 37 Years Old	19	6,7	6,7	84,4
	Between 38 - 44 Years Old	12	4,3	4,3	88,7
	Between 45 - 51 Years Old	12	4,3	4,3	92,9
	Older 51	20	7,1	7,1	100,0
	Education	Primary School	7	2,5	2,5
Junior School		9	3,2	3,2	5,7
High School		100	35,5	35,5	41,1
Bachelor Degree		138	48,9	48,9	90,1
Master Degree		23	8,2	8,2	98,2
Doctoral Degree		5	1,8	1,8	100,0
Information	Friend Sugestion	128	45,4	45,4	45,4
	Electronic Media (ie. Email, Internet, TV)	75	26,6	26,6	72,0
	Brochure	35	12,4	12,4	84,4
	Another information	43	15,2	15,2	99,6
	Total	282	100,0	100,0	

that enjoying the natural scenery during the trip and having the desire to do vacation existed in this group age. On the information aspect, it was mostly gathered from friends' recommendations, while electronic media came next. Age factor was the factor in deciding to do a vacation (Jönsson &

Devonish, 2008). Youth means having many friends, to have a vacation they would ask them. Friends' recommendation who have visited a place becomes the information about that place (Murphy, Mascardo, & Benckendorff, 2007). With the acquired information, it is materialized in the form

Table 2  
*Model summary*

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	R Square	R Square Adjusted
Affective Image	0.764	0.767	0.894	0.809	0.341	0.330
Cognitive Image	0.792	0.800	0.905	0.827	0.222	0.211
Place	0.819	0.824	0.917	0.847		
Price	0.602	0.618	0.833	0.713		
Product	0.603	0.654	0.830	0.711		
Promotion	0.749	0.809	0.886	0.795		

of trust, in this case the cognitive aspect and mind-set of the tourist site, or can be said as affective (Martin et al., 2008). Information gleaned from the experiences of friends who have visited will influence in site selection (Kim, Lehto, & Morrison, 2007). In addition to information and age, gender will also be influential in visiting the tourist area since male more often do a look up over tourist sites (Kim et al., 2007).

The measurement of research models in using PLS is seen from the Average Variance Extracted (AVE) (Table 2). The number has to be bigger than 0.5 while the Cronbach's Alpha and Composite

Reliability of the reasearch is bigger than 0.6 (Hair Jr, Sarstedt, Hult, & Ringle, 2014). The results of this study indicate that overall value is greater than that required. The next step is to test the research hypothesis. Furthermore, the R square of the research that connects promotion, product, price, and place to affective image of 0.341, meaning the relationship influenced by the model is 34.1%. While the value of R Square of promotion, product, price, and place to cognitive image is 0.222 and the association of the variable is 22.1%.

Table 3  
*Hypothesis testing direct effect*

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Hypothesis
Product ->Cognitive Image	0.211	0.214	0.055	3.847	0.000	Accepted
Product ->Affective Image	0.162	0.168	0.064	2.522	0.012	Accepted

Table 3 (Continue)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Hypothesis
Promotion ->Cognitive Image	0.127	0.128	0.057	2.224	0.027	Accepted
Promotion ->Affective Image	0.075	0.079	0.064	1.175	0.240	Rejected
Place ->Cognitive Image	0.330	0.328	0.068	4.876	0.000	Accepted
Place ->Affective Image	0.020	0.025	0.065	0.309	0.757	Rejected
Price ->Cognitive Image	-0.057	-0.050	0.064	0.887	0.376	Rejected
Price ->Affective Image	0.179	0.176	0.064	2.800	0.005	Accepted
Cognitive Image ->Affective Image	0.418	0.415	0.072	5.778	0.000	Accepted

Data processing by using Partial Least Square (PLS) has a condition where the value of T statistics must be greater than 1.96 and the P value must be less than 0.05, while significance level is 5% (Hair Jr et al., 2014).

Based on Table 3, the first hypothesis about how the product positively influenced the cognitive image is accepted because the value of T statistics, which is 3.847, is greater than 1.96 while the P value (0,000) is lower than 0,05. Furthermore, the second hypothesis which says the product has a positive influence on affective image is accepted because the value of T statistics of 2.224 is greater than 1.96 and the P value of 0.012 is smaller than 0.05. On hypothesis

3 about how promotion positively affect the cognitive image is acceptable because the value of T statistics of 1.175 is less than 1.96 and a P value of 0.027 is less than 0.05. Meanwhile, hypothesis 4 which says promotion has a positive influence on affective image is rejected because the value of T statistics of 1.175 is smaller than 1.96 and the P value of 0.240 is greater than 0.05. Then at Hypothesis 5 which says Place have a positive effect on cognitive image, this hypothesis is accepted because the value of T Statistics of 0.876. This value is greater than 1.96 and the value of P of 0.000 is smaller than 0.05. Conversely, hypothesis 6 which says that place has a positive influence on affective image is

rejected on the results of this study. It is because the value of T Statistics of 0.309 is smaller than 1.96 and the P value of 0.757 is greater than 0.05. Hypothesis 7 about price has a positive effect on cognitive image in this research is rejected, because the value of T statistics of 0.887 and the value of P (0.376) is greater than 0.05. Then on the 8<sup>th</sup> hypothesis that states price has a positive effect on affective image for this hypothesis is accepted since the value of T of 2,8 which is greater than 1.96 and the value of P from the research results is 0.005 where this value is smaller than 0.05. Meanwhile the 9<sup>th</sup> hypothesis which states that cognitive

image has positive effect on affective image, is accepted. The results of this study shows the value of T Statistics of 5.778 where the value is larger than 1.96 and the value of P of 0.000 where this value is smaller than 0.05. This condition is in accordance with the conditions that have been set. Based on the result of processed calculation, it can be concluded that three hypothesis are rejected. They are the hypothesis of place against affective image, price against cognitive image and promotion on affective image. The other six hypotheses are accepted. Furthermore, the results of this study can be seen in the Path Diagram in Figure 2.

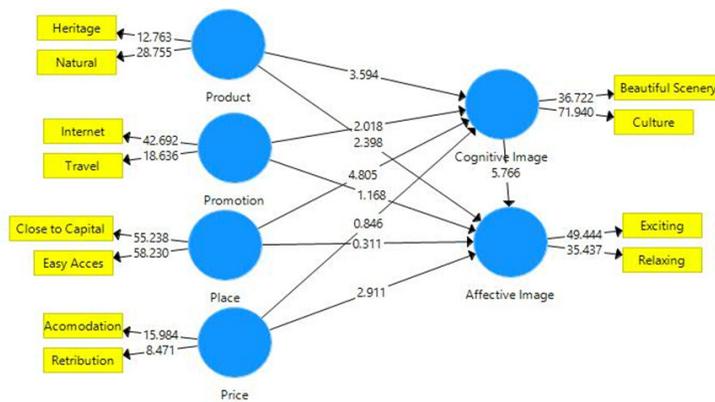


Figure 2. The calculation result of structural equation

Table 4  
Indirect effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Hypothesis
Place ->Cognitive Image ->Affective Image	0.138	0.133	0.036	3.860	0.000	Accepted

Table 4 (Continue)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Hypothesis
Price ->Cognitive Image	-0.024	-0.018	0.028	0.841	0.400	Rejected
->Affective Image						
Product ->Cognitive Image	0.088	0.091	0.033	2.708	0.007	Accepted
->Affective Image						
Promotion ->Cognitive Image	0.053	0.053	0.026	2.045	0.041	Accepted
->Affective Image						

Based on Table 4, it can be seen that place through cognitive image affects affective image with the value of T statistics of 3,860 where the value is greater than 1,96 and the value of P 0,000 where the value is smaller than 0,05. Furthermore, the results of this study also shows that the price does not affect affective image through cognitive image variables because the value of 0,841 is smaller than 1,96 and the value of P of 0,400 is greater than 0,05. Then the results also indicates that the product will affect affective image through cognitive image variables with T statistics greater than 1,96 and P value 0,007 where the value is smaller than 0,05. Furthermore, the promotion variable will affect the affective image through cognitive image variable with the value of T Statistics of 2,045 greater than 1,96 and the value of P 0,041 is less than 0,05. These results show that the rejected hypothesis can be answered

with the preceding variable except for the price variable.

## DISCUSSION

The calculation shows that each marketing mix dimension and image destination possess both influence and also has no influence as well. Where product positively influenced cognitive image, it is caused by existing natural resources as well as existing cultural heritage affecting visitor's trust because it is harmonious with the beautiful scenery and heritage shown in traditional event. Cognitive image will be formed from its natural scenery and environment (Lee & Lijia, 2006). The existing beauty of nature and cultural heritage will create cognitive image and affective image for the tourist area (Martin et al., 2008). In line with that, the product will influence the affective image of the visitor since the natural beauty of the place shall make the tourist spot an

interesting place. It makes the place a joyful resting place. On the other hand, parallel with the result that states the influence of product towards affective image, it is indirectly influenced by cognitive image. Tourist sites that have pristine natural environment product will evoke cognitive image (Lin et al., 2016). Cognitive image is formed after tourists know about the area they are visited (Baloglu & McCleary, 1999). Furthermore, by knowing the products that exist in the tourist area, tourists who visit it can feel comfortable and interested in the natural environment, cultural heritage, beautiful natural scenery, and customs served there.

The results of this study directly indicates promotions made through the internet and travel agents have influence over the cognitive image. The conducted promotion explains the natural beauty of Lake Toba as well as the heritage. With such promotion, visitors shall be well informed with their destination that possesses beautiful scenery while still retaining the unique culture of the Lake Toba area. It can be clearly seen that promotion influences cognitive image (Baloglu & McCleary, 1999). Furthermore, the results of this study states that promotion does not affect the affective image directly, this is because the promotion has not been able to explain the natural beauty that exist at the lake Toba area. This caused direct promotion has no influence to affective image. To be able to create affective image of the tourist area, visitors need to feel the value or benefits that will be acquired (Fernandez & Bonillo, 2006). The perceived benefit is the destination should be interesting

and able to provide a relaxed atmosphere. Conversely, promotion done indirectly influenced affective image through cognitive image variable. This can happen when the promotion campaign is able to explain the natural beauty of Lake Toba and also the existing cultural performance, making visitors feel the positive value of their visit.

This promotion does not directly influence to affective image. To be able to create affective image of the tourist area visitors need to feel the value or benefits they will be receiving (Fernandez & Bonillo, 2006). The perceived benefit is an attractive destination which is able to provide a relaxed atmosphere. However, the conducted promotion indirectly influences affective image and cognitive image variable. This is because the undertaken promotion can not create an attraction to the tourists. The promotion is not able to make the tourists imagine (i.e. feel interested and relaxed) when they visited the tourist site of lake Toba. The experience they get after visiting the tourist site is not because of the promotion. That is why the promotion does not relate directly to the affective image.

Place influences directly to cognitive image, but it does not influence directly to affective image. This is because the tourist site of lake Toba has beautiful scenery and cultural shows which can be accessed easily, so visitors keep the image of the lake in their mind after visiting it. Place does not relate directly to affective image because, in order to visit lake Toba, visitors have to take 4-5 hours from the capital of the province. In fact, the street heading the tourist site from the airport is not good enough. Street is an

infrastructure to reach a tourist site and this infrastructure creates affective image since it relates to visitors' feeling (Martin et al., 2008). The research result shows that place indirectly influences affective image by the variable of cognitive image. This is because, even though the location is far away from the capital city, the tourist site of lake Toba can give the visitors beautiful scenery and cultural events which can make visitors interested in the culture and the beauty of nature. Besides, the natural beauty offered by lake Toba also gives tranquility to the visitors. They will feel pleased after visiting it and get benefits when visiting it. This benefit will create cognitive-affective image (Bajs, 2015).

In this research, Price does not directly influence cognitive image since visitors do not feel at a loss in order to enjoy the natural beauty and cultural performance. Then price in this research is related to affective image directly. The cost spent for the benefits will form affective image (Bajs, 2015). By visiting the tourist area, visitors can evaluate whether or not their spending corresponds with the gained benefits. Moreover, price does not directly influence affective image through cognitive image since the result shown negative value. This is in line with previously-conducted research (Bajs, 2015). The result of the research indicates that visitors will pay as long as they are able to feel the benefits of the cost spent (Gallarza & Saura, 2006). Visitors will spend their money to be able to enjoy the beautiful natural scenery and cultural performances provided that they feel happy and comfortable. These are all possible when the price paid for

accommodation is in accordance with the value received by visitors. The creation of cognitive image by affective image in tourist site of Lake Toba exists in visitors' mind that can enjoy the beautiful natural scenery as well as cultural performances presenting the distinctive aspects of Lake Toba tourist area. In addition, the location makes visitors feel comfortable with the natural beauty and it also makes them happy with the tourist area. This research findings are in accordance with the previously conducted research (Baloglu & McCleary 1999; Styliadis et al., 2017) which stated that cognitive image influenced affective image.

## CONCLUSION

The result of this research shows that not all marketing mix dimension directly influence destination image dimension. The research indicates that to be able to create cognitive image of Lake Toba tourism area, it is determined by the offered tourism product, promotion, and place that will arouse desire to visit the tourist area (Martin et al., 2008). This is because, when the tourists visit the tourist site of lake Toba, they can see the beautiful scenery and well-preserved local culture. Furthermore, the results of this study also show that affective image of Lake Toba tourism area is directly influenced by product, price and cognitive image. This is because the three variables will explain the feelings of visitors about the tourist area (Lin et al., 2016). The feeling experienced by the tourists is gained after they visited the tourist site of lake Toba. This research also shows that place, promotion, and product indirectly relates to affective image by cognitive

image. This research also shows that price indirectly does not relate to affective image by the variable of cognitive image. By knowing the tourism area to be visited, the cognitive image and affective image of tourists towards the place will be formed (Baloglu & Brinberg, 1997; Yang, Yuan, & Hu, 2009). This research has a limitation in the tests performed wherein motivation factor of the visitors to visit Lake Toba tourism area should be measured. Moreover, in the subsequent research, it would be best to add more variable to measure how much the intention of revisiting the Lake Toba tourism area is. These results of the research signify that not all dimensions of marketing mix dimensionally correspond with destination image dimension.

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*Review Article*

## **A Review Paper on the Role of Commercial Streets' Characteristics in Influencing Sense of Place**

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### **ABSTRACT**

Streets are an important part of open public spaces that reflect the character and the sense of place of cities. Streets have many functions that give them their sense of place in the cities, as well as reflect the character of cities by their physical characteristics. Due to the unfit development of street characteristics, changing some of them, and remove others, the sense of place is interrupted, thus, affecting the people's feelings and perception of the streets. This paper attempts to review the roles of the physical characteristics of commercial streets in giving the sense of place in city centers. The aim of the study is to determine theoretical framework of the roles of the physical characteristics of commercial streets in giving the sense of place in city centers. The paper reveals that location, physical appearance, landscape features, and quality of views represent as the physical characteristics in streets, which play different roles in accessibility, recognition, legibility, safety, comfort, and visibility.

*Keywords:* City centers, commercial streets, physical characteristics, sense of place

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### **INTRODUCTION**

Streets are an important part of open public spaces that reflect the character and the sense of place of cities (Najafi & Shariff, 2011). The topic of this research refers to "Role", which means a function or the degree to which someone or something is involved in a situation or an activity and the effect that they have on it (Stevenson,

2010). Streets have many functions that give them their sense of place, thus this sense is reflected generally in the city. The physical characteristics of streets, such as building and landscape features, contribute not only to make the street legible and accessible (Abbaszadeh, 2011), but also to provide a safe, comfortable, visible, and orientated environment in the street (Ja'afar, Sulaiman, & Shamsuddin, 2012; Shamsuddin, 1997). Therefore, it is vital to understand that street character and its role in urban studies is important to reinforce the sense of place of city centers. Based on the statement, the main feature of this research is to establish the role of the physical characteristics of the commercial street in contributing to the sense of place.

### **Problem Statement**

Physically many public open spaces of city centers' streets have changed (Ja'afar et al., 2012). However, due to the unfit development of street characteristics, the sense of place is interrupted, thus, affecting the people's feelings and perception of the streets (Shamsuddin & Ujang, 2008). This unfit development of street characteristics is represented by using different materials and colors in the finishing of building elevations, and rebuilding some parts of street by adding new physical elements without having pre-study about street character in relating to the sense of place. Moreover, new buildings and their front facades in the streets do not emphasize the character of city. Random signs and billboards hanged and fixed on the building facades reduce the

significance of these facades in enhancing the character of city, making it difficult to notice (Jawad, 2011). In most cases, changes in the physical setting may consequently erase what is precious in street.

## **LITERATURE REVIEW**

### **The Concept of Place and Sense of Place**

Many authors and environmental psychologists argued that the experience of place is one of the most important factors in the sense of place, as mentioned by Steel (1981), Shamai (1991), Lynch (1981), Barker (1979), Relph (1972), and others. They defined and explained many important definitions and concepts that were related with place. Also, they are regarded as pioneers in using experiential perspectives to reflect on place and the "sense of place."

As mentioned by Wardner (2012), Farkisch, Che-Ani, Ahmadi, Surat, and Tahir (2011), and Ja'afar et al. (2012), it has been stated by Relph (1972) that the interplay of three components, namely "physical setting," "activity," and "meaning" constituted what was known as place. This notion has been further elaborated by Shamai (1991) to define sense of place as the aggregation of three elements, which are landscape, location, and personal involvement. Sense of place has been referred to by Soini, Vaarala, and Pouta (2012) as a manifestation of harmony between people and nature, where care is given to the place, adding aesthetic quality of the landscape, as echoed by myriads of researchers (Birkeland, 2008; Soini et al., 2012). Furthermore, sense of place is

deemed to be a dynamic construct, in that it has the tendency to vary as a function of culture and time (Relph, 2007).

On the other hand, sense of place has been defined by others as a multidimensional concept of affective, cognitive, and conative aspects (Casakin & Omar, 2008; Farkisch et al., 2011; Jorgensen & Stedman, 2006). As mentioned by Jorgensen and Stedman (2006), because sense of place is such a complex concept, until now there is yet no consensus in the literature in terms of what it actually consists of and how it ought to be assessed. In further elaboration of this concept, the rational, emotional, symbolic, and spiritual aspects of the relationship between people and their physical environment is addressed by sense of place. It was considered by Semken, Neakrase, and Dial (2009) that the psychomotor aspect relates to sense of place if particular kinesthetic activities are associated with or localized in a particular place, whereas they later mentioned that sense of place encompasses the cognitive and affective aspects.

Three components that contribute in making a sense of place were referred to by researchers (Beidler, 2007; Najafi & Shariff, 2011). They mentioned that activities, meanings, and physical attributes are components related to places that contribute to creating a sense of place. It is worth considering that each place was built for serving a specific action, meaning activity could refer to actions served by the place (Najafi & Shariff, 2011). As for physical elements, it indicates to the characteristics and attributes of a setting that define the

kind of place it is. In addition, it can also be said, as mentioned by Najafi and Shariff (2011) that sense of place is defined as an overall impression surrounding the general ways in which people feel toward places, sense them, and assign concepts and values to them.

In parallel, place relationships were related with sense of place, since place is fully made of concrete things that comprise of shape, texture, substance, materials, and color, which together determine the essence of a place (Shinbira, 2012). It is the area where one is acquainted of the unique character of given localities and perception is enhanced. The faculty of recognizing various places and distinguishing different identities of a place is attributed to the concept of sense of place. People are effected by places and reciprocally place is affected by people due to the attribution of meanings to physical forms. Subsequently an interaction occurs with a place rather than a response to a place, hence enriching the place with meanings. For this reason, historical and heritage places carry more sense of place compared to contemporary modern places. Based on the aforementioned, this study looks into the role of characteristics of streets in terms of their functional and physical aspects, while excluding the meanings of street.

The strong relationship and bonds between place and people is well established in the academics (Wardner, 2012). Researchers of environmental psychology, such as Shamai and Ilatov (2005), have categorized these relationships into three dimensions for individual study. One of these

dimensions involves the affective dimension of place (feelings and emotions) and includes variables such as place attachment. Another is the cognitive domain (perceptions and beliefs of place) and includes variables such as place identity. Finally, the third is the conative domain (commitment to place and behavior toward it) and is measured in terms of place dependence. Having seen these three dimensions, Jorgensen and Stedman (2006) stated that sense of place could safely be regarded as a multidimensional attitude toward a spatial setting. This framework manifests the three-aspect view of place. It is assumed that the physical environment, activities (the cognitive dimension), and meaning (the affective and cognitive dimensions) are independent variables of a sense of place.

There are also alternative three viewpoints for sense of place as stated by Williams (2007). One of these viewpoints regards sense of place as cognitions of place, as in awareness and knowledge of place. The other regards sense of place as a faculty or capacity, as in keen sense of place similar to a keen sense of smell or a keen sense of humor. Finally, sense of place is regarded as the character of a place, as in the atmosphere of place. This study adapts the latter of these viewpoints, as in sense of place being related to place character.

Another way of defining sense of place is as the qualities that differentiate between one place and another (Shamsuddin & Sulaiman, 2002, 2008). According to English Oxford Living Dictionaries (2012), quality means a distinctive attribute or

characteristic possessed by someone or something. As this study attempts to focus on street characteristics and their roles on making sense of place, one direction should be selected from the aforementioned wide dimensions of sense of place to build the basis of the study. Thus, the researcher found that the definition of sense of place by Shamsuddin and Ujang (2008) was the most suitable definition for achieving directly the aim of the study and avoided unrelated information.

### **The Role of the Street Characteristics Relating to the Sense of Place**

First of all, it is important to clarify the meanings of street character. The concept of character relates to the qualities belonging to a place that together give it its own identity and help distinguish one place from another (Changes Log, 2013). This is often referred to as its sense of place; so when one gets “there,” one experiences a sense of arrival or being “somewhere.” Character is influenced by factors such as architectural feature, materials and traditions, relationship of buildings to landscape, history and economy. These factors combine to create places that are distinctive and specific to their location, not the qualities of somewhere else (Changes Log, 2013).

It is worth notion that understanding the concept of the street character associates with the understanding of street characteristics and their roles. Thus, the following sections will explain physical characteristics and their roles one by one.

### **The Physical Characteristics of Streets and their Roles associated with the Sense of Place**

Physical characteristics are the main feature of a city (Abbaszadeh, 2011). They tend to play a role as qualities associated with street identity that generate the sense of place (Shinbira & Sulaiman, 2010). According to Cizler (2012), Calcatinge (2012), DePriest (2010), Khirfan (2010), and Fisher (2009) quoted from Lynch (1981), “identity” is the narrow meaning of that common term: “a sense of place.” “Identity is the extent to which a person can recognise or recall a place as being distinct from other places – as having a vivid, or unique, or at least a particular, character of its own” (Lynch, 1981). If this definition is taken, then it can be presumed that people can recall or recognize places by their distinctive features, and such places will have their unique sense of place (Shinbira & Sulaiman, 2010). It is the unique value that is allocated to a specific place or area through the cognitive experience of the user or viewer. In some cases, these values allocated to the place are similar for a wide spectrum of users or viewers, giving the place a universally recognized and therefore strong sense of place (Martin, 2012).

Since the place should be noticeable or recognizable through its physical characteristics, it is evident that the role of these characteristics is to make the street recognizable or noticeable or legible. Hence, the following sections explain the physical characteristics of the street and their roles that identifies the street. The roles

of physical characteristics are related with identity of place or imageability or legibility that in turns give the sense of place.

### **Location Feature and its Roles in Making the Street Accessible and Recognizable.**

Location in context is one of the physical characteristics of the street (Shamsuddin, 1997). This researcher finds that the location of the street becomes a recognizable feature, especially when its surrounding environment is easily identified. Streets and buildings are recognized by their location in relation to the buildings located adjacent to them or within their vicinity.

On the other hand, Jalaladdini and Oktay (2012) mentioned that the street was a space within the city area, which was accessible to all people and was the ground for their activity. Accessibility has two types: (a) visual accessibility that allows people to see it and be informed about what is happening there, and (b) physical accessibility that allows people to enter that space and use its functions. An urban public space should invite people to come inside and use its facilities (Jalaladdini & Oktay, 2012). Moreton Bay Regional Council (2013) defined accessibility as the ease at which people could move around and between places and facilities. Accessibility means the ability to easily get to and move through a place, thus provides ease of movement (Ujang, 2008). According to Abbaszadeh (2011) quoted from Litman (2017), accessibility refers to the ease of reaching destinations. People who are in highly accessible places can reach many other destinations quickly.

Each street forms both a destination and a connection to other places (South Gloucestershire Council, 2013). According to Ujang (2008), the location of the place plays an important role in making the street accessible, particularly, when these streets are strategically located and are highly accessible from various locations, are well-connected streets, are well-connected pedestrian paths, and are accessible by various transport modes. These features of street location emphasize the importance of connectivity and permeability in supporting movement in the street, thus making it accessible for users.

**Appearance Feature and its Role in Making the Street Recognizable.** Physical form and appearance are the characteristics of the physical environment, especially buildings, which are distinctive and easily recalled (Shinbira & Sulaiman, 2010). Shinbira and Sulaiman (2010) suggested that differences also must be noticed by the perceiver. Physical differences, according to him, are identified as follows: shape, size, height, color, materials, texture, details, location, and movement. According to Abbaszadeh (2011), appearance is an important feature of physical elements, especially in buildings appearances that make them noticeable and easily recalled (Appleyard, 1969; Shamsuddin, 1997). On the other hand, Omer and Jiang (2008) mentioned that the appearance of an object in the environmental image depends on its “distinction from other things...as a separable entity,” which makes it easier to

identify the object according to its spatial or pattern relation to other objects and its “meaning for the observer, whether practical or emotional” (Lynch, 1960). The physical appearance is a feature that is associated with the overall perception of the street environment whether it is building or non-building elements (Abbaszadeh, 2011; Better Market Street [BMS], 2011; Shamsuddin, 1997).

Buildings not only play an important role as landmarks but also as public art (such as sculptures, statues, and murals). These urban features create “monuments” that act as a visceral compass and aid in way-finding (Grabler, Agrawala, Sumner, & Pauly, 2008). Buildings can act as landmarks and nodes, and can be used in determining the path of place or street (BMS, 2011; Long, Baran, & Moore, 2007; Lynch, 1981; Mohammed, 2010). These elements are among others mentioned by Lynch in his book, *Good City Form* (1981) and asserted by many authors (Mohammed, 2010; Kumar, 2007; Long et al., 2007; Shannon, 2012).

Non-building elements contribute to making the street legible and recognizable (Shamsuddin, 1997; Ujang, 2008). According to Mohammed (2010), street furniture and lighting equipment have a major impact on the appearance of a street. Street furniture should be integrated into the overall appearance of a street (Telford, 2007). Abbaszadeh (2011) quoted from Lynch (1960) stated that street furniture was a physical characteristics that users utilize to identify the street easily.

The appearance of the physical elements, especially buildings, played an important role in recognition by the residents (Shamsuddin, 1997). It was determined that there were nine aspects relating to the appearance of buildings that are used to recognize a building. These features were the height and size, architectural style, facade and decorations, condition and upkeep (age), building form, color, roof form, bill boards, and building materials. In line with this issue, Abbaszadeh (2011) argued that buildings' appearances form an attractive public environment, creating places that could be seen and enjoyed by the public. Several authors (Appleyard, 1982; Shirvani, 1985) suggested that the building's features included size, shape, signs, color, material, texture, architectural style, ornamentation, height, roof form, skyline, and storefront. For instance, Harrison and Howard (1972) and Shamsuddin (1997) argued that buildings' appearance included height, size, architectural style, facade, roof form, material, and color.

According to the aforementioned literature, physical appearance is a feature that is associated with the overall perception of the street environment and it is important in the recognition of streets. As mentioned by many researchers, building appearances are consist of style, form, facade, material, color, height, size, age, condition, roof form, and signage. It is in the interest of this research to identify the role of appearance as one of the physical characteristics of the street in making the sense of place in Mosul City. Since there are many attributes relating

to building appearance, it is also interesting to discover which aspects of building appearance are important to give a sense of place on the commercial streets and which are the least distinctive to the users.

### **Landscape Features and their Roles in Making the Street Safe and Comfortable.**

According to Ja'afar et al. (2012), landscape features are one of the physical elements of the place. It is generally natural physical characteristics (Abbaszadeh, 2011). Soft landscape (trees) and hard landscape (street furniture) are considered as landscape features based on the study of London Borough of Croydon (2009). Soft landscape features in this study are the landscape elements that represent nature such as plant, water, and topography (London Borough of Croydon, 2009). However, hard landscape was categorized as the manmade features designed to complement the soft landscape (Mehta, 2007).

The success of any given place is highly influenced by the safety, comfort, and convenience, which people experience while pass through and/or go to places, spaces, and buildings. According to Ja'afar et al., (2012), the presence of signs, lighting at night, sitting areas, trees, beautiful views, parking areas, facilities, and pavements with suitable width to walk on, contribute to making a comfortable environment. This study concludes that a significant role is played by natural elements in contributing toward the positive feeling of the place, thus making it comfortable for its users. A comfortable environment is also associated with the

quality of the view, which is created by river, vegetation, and topography, as suggest by Handy, Boarnet, Ewing, and Killingsworth, (2002) and Cullen (1985). The reflections of buildings along the river and the colorful lighting at night create a beautiful visual effect. Moreover, it has been proven from previous studies that trees create a good human relationship with nature and this creates a peaceful environment (Appleyard, 1982; Ja'afar & Usman, 2009). Ja'afar et al., (2012) mentioned that mature trees are considered as a street symbol and contribute to the comfort of the environment.

According to South Dublin County Council (2011), six features, namely, benches, dustbins, bicycle racks, bus stops, the quality of view, and pavements, contribute in making the environment in streets uncomfortable. It has been established that the attractiveness of the street decreases due to the presence of too much traffic management, which means that uncomfortable environment on streets is partially attributed to an over-presence of traffic lights (South Dublin County Council, 2011). Furthermore, the untidy appearance of transformer vaults and manholes adds to the decline in the quality of view, leading to an uncomfortable environment.

On the other hand, Shaftoe's (2008) suggested that to create a safe environment, it was important to provide appropriate street lighting. This is consistent with the findings of Ja'afar et al., (2012), who found that positive and negative feelings were influenced by a feeling of safety, particularly through street lighting, the lack

of which, especially at back lanes, created an insecure feeling, while the opposite led to a safe environment. Lighting assists in the protection of property, discourages vandalism and crime, and as a result residents and street users build a feeling of security (Telford, 2007). Furthermore, Ja'afar (2006) had observed that the continuous presence of pedestrians along the way, the presence of security officers and a safe traffic environment, walkways that extended from one destination to another, and lighting at night all had a vital role in making the street a safe place.

#### **Quality of Views Feature and its Roles in Making the Street Visible and Orientated.**

Quality of view is one of the physical characteristics of the street (Abbaszadeh, 2011; Shamsuddin, 1997). The quality of views contributes in making the street recognizable, thus enhancing the distinctiveness of physical characteristics (Shinbira & Sulaiman, 2010). According to Shamsuddin's study (1997), buildings, streets, and landscape features were sometimes recalled because of the quality of views that were enjoyed by the residents. Accordingly design principles, views, and vistas could be used to create and reinforce a sense of place in new development. Looking from one area to another highlights the feeling of being in a particular place. Views also help people to find their way around and to understand the relationship between building and connecting streets. Views focus on features of interest, distinctive buildings, or local landmarks that can

help to give places a sense of identity. Positioning buildings on the axes of views gives buildings more significance.

The location, types, and colors of greenery contribute to the quality of view for pedestrians on the street. Likewise, a breathtaking visual effect is formed by colorful lighting at night and the reflections of buildings along rivers. Moreover, hard landscape features also play a role in the quality of view. Colorful lightings in the form of decorative lightings have been found to contribute to the quality of view at night, as night settings form an enjoyable and attractive environment, contributing toward a sense of place in the form of a place symbol.

Shamsuddin (1997) mentioned that the type of view that made the street recognizable or recalled might be as a panoramic view, and a screened view. The quality of these views experienced by the residents affect their reaction to the town center's environment and their ability to remember them. Worskett (1969) also argued that the combination of different types of views and the discipline of their arrangement could be a strong factor in creating a local character. One of the characteristics of distinctive views is the discipline of their arrangements. An example was put forward by Worskett (1969). He suggested that the combination of contrasting viewpoints, such as a broad panoramic view and a small tightly enclosed view, played a big part in giving the street a particular character. If this arrangement is changed, then the whole character will be changed.

On the other hand, views to landmarks and the surrounding city serve to orient travelers on the market street, denoting a special place. The market street is a strong reference point and orienting feature in the city, offering iconic views to key features, including the building, bridge, tower, and so forth (BMS, 2011). Re-Streets (2011) emphasized on the street way-finding and its essential role in addressing the need of people to orient themselves in the landscape, to navigate between destinations and to understand their next move. He mentioned that different way-finding elements were necessary to create a street environment where information seamlessly filled navigational gaps, heightened the sense of place and helped people interpret their surroundings. Way-finding allows both the pedestrian and people using all other types of transportation to successfully navigate in the environment. Therefore, he endeavored to design way-finding features, including styles, materials, colors, and such, to strengthen the sense of place as well as minimize undesirable clutter in the places.

The clarity of orientation is influenced by soft landscape features, particularly greenery and rivers, because their location creates clarity of orientation (Ja'afar et al., 2012). The clarity of orientation is also affected by the diversity and variety of greenery features such as types, singularity, location, color, and size. Five features support the quality of orientation: signage, pavements, outdoor cafes, stages, and public toilets. The pavement design at the building frontage and the junction support the clarity

of orientation. According to South Dublin County Council (2011), the selections of surface material help to distinguish the character of the place, which makes the street readable. Signage contributes to clarity of orientation through location and visibility of design appropriateness.

**METHODS**

The research’s aim is to determine theoretical framework of the roles of the physical characteristics of commercial streets in giving the sense of place in city centers. To form this theoretical framework, this reviewing study tries to explain variables related to the physical characteristics, their roles, then how to measure these roles in relating to the sense of place. This is done through showing related previous literatures and methodologies.

Previous research shown in Table 1 that focused on perception, evaluation, imageability of place, sense of place, place attachment, and place identity found that the

nature of street location, street buildings, landscape features, and quality of views in streets are considered as physical elements, which are the first contributor in creating unique sense of place in cities.

Based on the aforementioned literature reviews and methodologies, identifying street characteristics should be measured by asking users about their perceptions and feeling in the streets since people are a major element in performing the place. In terms of street location the respondent will be asked many questions like; can you access to this street easily? If yes, why? If no, why? And which of the places or features do you help to find the street and worthy of being pointed out to a person who wants to access to this street easily? While in recognition buildings and non-building elements, the researcher needs to know which building and non-building elements in this street do people find distinctive? How important of them when do people want to recognize them? And what aspects of them do people find most distinctive?

Table 1  
*How previous researchers studied the physical characteristics and their roles in streets*

Researcher(s)	Year	Variables and their roles in streets
Abbaszadeh	(2011)	Building, building appearances, location, landscape features, trees, and street furniture are physical characteristics to recognize the street environment.
Baghi	(2011)	Environmental comfort on the street, seating, physical artifact, sidewalk width, attractiveness and interesting appearance, sense of safety are physical elements that create vibrant street.
Shamsuddin	(1997)	Physical appearance, quality of views, strategic locations of the street create place identity than in turn contribute in making sense of place.
Ja’afar and Usman	(2009)	Buildings, and non-building elements are the types of street elements enhanced in traditional streets in attracting visitors. These elements contribute in making identity and character of place.
Ujang and Shamsuddin	(2008)	The physical element, activity and meaning are intertwined in the people experience of place. And their roles in making accessibility, legibility, vitality, diversity, transaction, distinctiveness, and comfort.

In addition, the role of landscape features can be measured by asking people about their feeling like: do you feel safe while on this street? If yes, why? If not, why? Do you feel comfortable walking along this street? If yes, why? If no, why?

Thus, this research asks people about how they feel, recognize, understand, and use the street. Hence, it can be said that this research determines key subjects including perception of place, street characteristics, sense of place, and concepts of place to find

very close previous research and methods that are used as evidence in adoption of the methodological approach of the study.

### CONCLUSION

This study reveals that location, physical appearance, landscape features, and quality of views are the physical characteristics in streets (Figure 1). Each of them plays its own role in creating sense of place in the street.

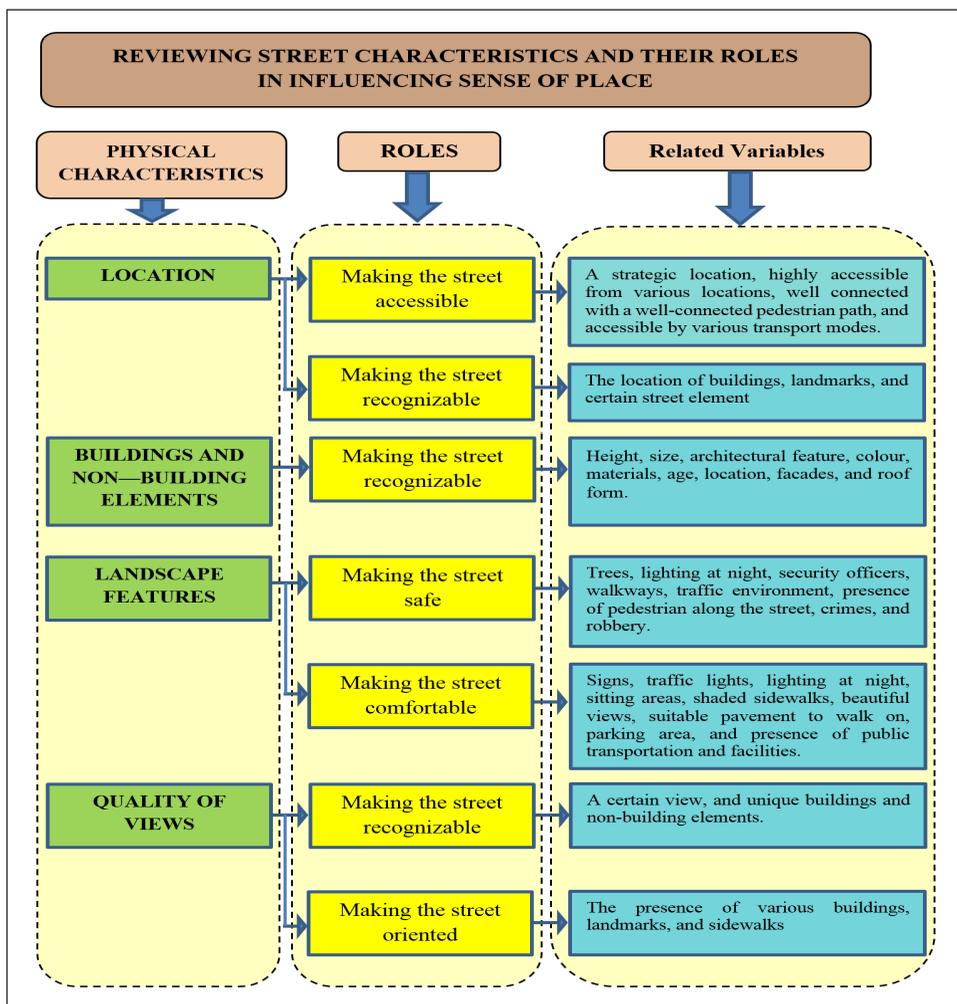


Figure 1. Theoretical framework

Location plays two important roles: firstly making the street accessible through being characterized with a strategic location, highly accessible from various locations, well connected with a well-connected pedestrian path, accessible by various transport modes; and secondly making the street recognizable when people recognize the location of its buildings, landmarks, and certain street element.

Physical appearance has a role in making the street recognizable through height, size, architectural feature, color, materials, age, location, facades, and roof form. Landscape features have two roles: making the street safe and comfortable. Trees, lighting at night, security officers, walkways, traffic environment, presence of pedestrian along the street, crimes, and robbery contribute in making the street either safe or not. On the other hand, signs, traffic lights, lighting at night, sitting areas, shaded sidewalks, beautiful views, suitable pavement to walk on, parking area, and presence of public transportation and facilities contribute in making the street comfortable.

Quality of view plays two roles: making the street visible and oriented. A certain view or certain activities, and unique buildings can make the street visible. The presence of various buildings, landmarks, and sidewalks that guide people can make a street oriented. In this research, quality of view is considered as one of the physical characteristics of the street that have a role in creating a distinctive and unique sense of place.

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## **An Analysis of the Role of Community Empowerment Program (CEP) in combatting Domestic Violence against women: A Case study of Bangladesh**

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### **ABSTRACT**

The paper explores the impact of Community Empowerment Program (CEP) of Bangladesh Rural Advancement Committee (BRAC), one of largest and diversified NGOs in Bangladesh, more popularly known by its acronyms BRAC, in challenging violence against women. The reference point for analysis in the paper is the women CEP members' own perception about their life transformation in general and their stand towards violence in particular. Unlike other research studies conducted in this area that focuses on women's financial freedom, this paper focuses on violence against women, one of the most vital indicator of women's socio-political empowerment. The paper is based on both primary and secondary data. Qualitative primary data were collected from women beneficiaries of CEP program in Bangladesh. This paper argues that CEP can be a useful empowerment tool that can reduce domestic violence against women but only when combined with women and their husband's education and training. It concludes that education and training are more important that should be the focus of all CEP programs.

*Keywords:* Community empowerment program, socio political empowerment, women's mobility

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### **INTRODUCTION**

Bangladesh is characterized by classic patriarchy and inequality in general and gender inequality in particular. This is not unique to any particular region or country but sometimes it takes on different forms that result in different consequences. The gender norms and practices that prevail in

a patriarchal country like Bangladesh keep women isolated from the outside world. This is a country that restricts women to undertaking purely reproductive roles or sometimes productive roles that can be carried out largely within the home. Women's domestic and family work is essential yet it is unpaid, ignored and rarely considered to be of the same value as work that is primarily undertaken by men (Efroymsen, Biswas, & Ruma, 2007).

In addition to this, gender-based violence is not uncommon in a patriarchal country like Bangladesh. Various forms of violence experienced during a woman's lifetime that starts at birth and continue until her death. Violence against women is an important indicator of women's overall subordination in rural Bangladesh. From childhood, women are raised with an understanding that they are worthless in comparison to men and that they have to depend on males for every single matter. Some situations and incidents of domestic violence demonstrate the male's assertion of superiority and dominance in the household. The paper analyses the role of Community Empowerment Program (CEP) in combatting domestic violence against Bangladeshi women. It was very difficult to assess spousal violence against women at home as it is a confidential and sensitive issue. However, for this research, an open and secure environment was offered to each and every participant, ensuring that each interviewee had no fear of their discussion being overheard by her husband, NGO officials or other women from within the group or the community. The study

revealed that many respondents showed less hesitation in discussing violence issues, due to their acceptance of the researcher as their trustworthy friend.

### **Background of the Paper**

In Bangladesh, women are raised with messages that convey their lack of value and capability in comparison with men. The patriarchal culture and social norms place them in a position of subordination and oppression in their families, neighbourhoods and communities. Their upbringing trains them to be good mothers and wives and to perform all household chores perfectly. Bangladesh is a classic patriarchal society where women are expected to live and stay in their husbands' homes when they marry. This is often a long distance from where they were born and grew up and they are treated with very little respect (Kabeer, Milward, & Sudarshan, 2013). Thus, women in Bangladesh are underprivileged and oppressed, not only by the family but right up to the state level, and this is totally unacceptable. Gender equality and women's empowerment is not only a development issue but also a human rights and social justice issue.

Therefore, in order to ensure gender quality, gender -based violence has to be combatted. In order to be rid of the curse of poverty and to progress development, male supremacy and the oppression and domination of women need to be ceased and strategies must be put in place to advance the empowerment process from the household to the state level. One of the experimental

tools being applied to empower women is the Community empowerment program of BRAC.

BRAC is an organization that has rapidly evolved over the last three decades. It is the largest NGO in Bangladesh and was founded by Mr Fazle Hasan Abed. It commenced its activities in 1972 to assist the settlement of returning refugees in Sullah, Sylhet, under the banner Bangladesh Relief and Rehabilitation Assistance Committee (BRAC). Gradually BRAC transformed its mission, vision and goals and re-emerged as Bangladesh Rural Advancement Committee. BRAC works with people whose lives are dominated by extreme poverty, illiteracy, disease and other handicaps. BRAC is actively involved in promoting human rights, dignity and gender equity through building the social, economic, political and human capacity of disadvantaged people. Although the emphasis of BRAC's work is at the individual level, sustaining the work of the organization depends on an environment that permits disadvantaged people to break out of the cycle of poverty and hopelessness (Nawaz, 2011).

BRAC's mission seems to have affected positive life changing impacts on the lives of people who were threatened by extreme poverty and vulnerability. Since women are, by and large, the most marginalized, disadvantaged and vulnerable group of any society, BRAC's mission is to bring positive changes in the quality of life of this group, especially the poor. Although their mission statement mentions serving men and women, in reality, their key focus is on

women. BRAC's mission statement also mentions their aim to develop the members of the organization. Although BRAC was established as a relief and rehabilitation organization in a disaster prone, newly born country, gradually it shifted its approach to target group, community development and social transformation. Although BRAC came forward to offer microcredit to the disadvantaged people, it is not an exclusively microcredit- based NGO.

BRAC also provides other complementary programs relating to health, education and legal support. In addition to these programs, BRAC introduced the Community Empowerment Program (CEP)<sup>1</sup> in mid-1998. Through the formation of community- based organizations, this program aims to empower women at the grassroots level as well as mobilizing them to translate awareness into action. Through CEP programs women are made aware of their rights and this enables them to resist

<sup>1</sup>CEP refers to Community Empowerment program. CEP focuses on empowerment of the rural poor as a pathway to achieve the Millennium Development Goals (MGDs) and sustainable development. With the motto 'translating awareness into action', CEP aims for socio-political empowerment of the rural poor, particularly women, by enabling them to build, secure and use their socio-political assets to improve their wellbeing, exercise their rights, take advantage of new opportunities and play a more active role in public life. This is achieved through a set of programmatic interventions in the areas of rural resource mobilization, community institution building, strengthening local governance, creating awareness and access to information and addressing violence particularly against women ([www.brac.com](http://www.brac.com))

exploitation by mobilizing human, social and political assets. Among four different goals of CEP program mentioned in the footnote, this paper addresses only one important goal which is violence against women. The paper explores whether and how CEP program addresses violence against women.

### **Theoretical Foundation**

As NGOs have assumed wider roles, there has been simultaneous growth in the debate and controversy surrounding them, not only in Bangladesh but also globally. Different schools of thought have emerged to explain the controversy surrounding the role of NGOs. Modernization theorists hold positive views regarding the function of NGOs. From the positive point of view, it is argued that NGOs have a constructive association with the state and have emerged in order to help the state perform different developmental activities (Holloway, 1998). Rankin (2002) NGOs foster democratic participation within microfinance groups and this promotes collective decision making. Similarly, other researchers have found some improvement in women's individual capacities such as community mobility and decision making. Some supporters of NGOs consider women's empowerment purely from an economic perspective and believe that women can simply be empowered if they are economically developed. They argue that NGOs have concentrated their efforts on women's economic development by involving the women in income-generating activities and providing them with training,

credit and other inputs and that the financial support given by NGOs is beneficial to women and ensures their empowerment in rural Bangladesh (Shailo, 1994).

Researchers who have a negative view have often criticized the contribution of NGOs, considering their endeavours as repetitious and their activities as largely insignificant (Islam & Hussain, 1993). Ahmed (1993) claimed that strong national and international backing had encouraged NGOs to defy decisions of the state by setting their own agendas. Haque in Nawaz (2013) had made the observation that the influence of NGOs had increased in most developing nations over recent years. It is quite conceivable that NGOs have become a formidable force in Bangladesh, affecting the political and economic environment and the power and legitimacy of the government. They are the alternative voice who frequently expresses their opinions against the power of political society and the state.

A number of studies have highlighted the point that NGOs do not reach the poorest population of the country. Excluding those below the poverty line is a risk as they tend to be clustered in areas amongst the predominantly moderately poor or the vulnerable non-poor (Islam, 2007). Findings relating to the impact of microfinance on the incidence of domestic violence are also conflicting. Hashemi, Schule and Riley (1996) argued that microcredit reduced domestic violence, yet Mahmud et al. (1996) opposed this argument and claimed that microcredit increased household violence. They suggest that microcredit

may have a detrimental effect on the women's position within her family and community. Therefore, there has been substantial debate and controversy regarding the role of NGOs specially in women's empowerment. Although there are some researchers have already been conducted on the role of microfinance of NGOs in general and BRAC in particular in reducing domestic violence against women, there is no research has so far been conducted on the role of Community Empowerment Program, another significant program of BRAC in combatting domestic violence. The importance of finding an answer to these issues was the first justification for undertaking this research study and from this perspective the findings could a make a significant contribution to the theory and practice of women's empowerment.

### **Theoretical Key Concepts**

#### **Community Empowerment Program.**

The central objective of BRAC is poverty alleviation and the empowerment of the economically disadvantaged, especially women. To achieve this, BRAC has developed programs that provide access to credit and contribute to socio-economic empowerment through the provision of training and consciousness-raising amongst rural disadvantaged communities who have the least access to resources. BRAC believes that rural disadvantaged people can be economically active and can improve their economic situation if they are given access to credit and made aware of their status in society (Khandker & Khalily, 1996). They provide other supplementary

services mainly to microcredit clients, their children and sometimes to non-microcredit clients. From time to time, integrating all their services has been challenging because health, education, legal support and community empowerment programs are, by and large, either voluntary or services are offered at little cost.

The objective of CEP is to achieve socio political empowerment of poor women by enabling them to play more active role in social activities. The BRAC CEP operates through major four program interventions such as community institution building, strengthening local governance, access to information and addressing violence against women. Under this program BRAC organizes rural communities though democratic grassroots organization called *Polli Shomaj*. BRAC's approach to institution building is carried out through the women's federation (*Polli Shomaj*) following the promulgation of a law by the government of Bangladesh whereby each *Union Parishad* is divided into nine wards. The women's federation meets once every two months. The members of *Polli Shomaj* are encouraged to maintain funds within the federation to help vulnerable women in case of an emergency. The *Polli Shomaj* works as an advocacy body to ensure the rights and privileges of its members are upheld. As mentioned previously, it operates in four broad areas and the current research revealed that the majority of *Polli Shomaj* members were common members of a microfinance program.

**Socio Political Empowerment.** Socio-political empowerment encompasses the ‘power with’ dimension of power relationships. Its focus is on permitting women to examine and articulate their interests, that is, to organize them, achieve them and link with other women’s and men’s organisations to facilitate change (Basargekar, 2010). The socio-political dimension of empowerment encompasses women’s decision making agency, women’s mobility in the public domain, their ability to meet strategic gender needs and women’s changed perception and reaction towards spousal violence against women. These concepts have been adapted from Malhotra, Schule and Boender (2002), Moser in March, Smyth and Mukhopadhyay (1999), and Kabeer (1996).

### **Violence against Women**

Violence itself is defined as both physical and verbal abuse against women in the household. The indicators for exploring violence against women include issues such as whether women are afraid of their husbands; whether they are beaten by their husbands; whether they are both afraid and beaten by their husbands; how women perceive and react against spousal violence; whether they protest against violence either against themselves or on behalf of someone else in their neighbourhood and community; and whether they seek legal advice or aid from any institutions (Jejeebhoy in Kabeer, 1998).

### **METHODOLOGY**

An interpretive research paradigm had been used for this study to emphasize the value placed on the learning experience of the participants. In order to gain an understanding of the impact that microfinance has had on disadvantaged women in their real-life environment, an ethnographic research design was chosen for this study. For doing ethnographic research it is essential to reflect participants’ views, ideas and thoughts rather than researcher’s own ideas, opinion and interpretation. In this process participants are researched in their natural settings and are ideally not controlled by the researcher’s preconceived knowledge. For conducting an ethnographic study, the researcher attempts to collect and interpret data from the perspective of the population under study (Hancock, 1998). Silverman (2001) stated that “social scientists do something extra with observations, they write ethnographies. Ethnography refers to social scientific writing about particular folks”.

Within the parameters of my research, the author tried to understand and explore information about the role of women in their families and outside their home as well as any changes in their attitude and activities following their involvement in microfinance programs. The author investigated the respondent’s views regarding changes they experienced following their involvement in microfinance, any positive and negative impacts microfinance had on their life transformation and what was needed to

make the program more client-oriented. The ethnographic approach enabled me to obtain essential data from my respondents. The author had no relationship and no conflict of interest with the participants. The author made my position very clear to my respondents within the context of my study. The author interviewed participants and drove the research process personally. The research has no specific cultural or religious focus, although the author acknowledges that participants were mainly from the Islamic religion as it is the dominant religion of Bangladesh. The author did not face any religious conflict while collecting data as I also belong to the same religion.

The author's epistemological position drove her choice of methodology, guiding her to choose inductive (qualitative) research and data collection techniques to conduct the study. The present study follows a qualitative strategy with inductive reasoning, i.e., based on the on-going construction of reality by both the participants and the researcher. Broader generalization and theory formation are attempted. This study emphasizes 'words' rather than 'numbers' and gives higher priority on the participants' ideas, actions, and method of constructing 'realities.' Moreover, the author focused on the process—why and how things happened—rather than the outcomes. Therefore, importance has been given on the 'depth' rather than the 'breadth' as well as on the participants' real world. The study also followed a triangulation approach involving different qualitative methods of data collection such as semi-structured

in-depth interview, focus group discussion and observation, and multi-perspectives analyses involving both the participants and NGO officials.

The data were collected to explore the processes by which microfinance may perhaps make a difference to the lives of the borrowers. A village named Haragram under Paba Upazila was selected for the purpose because of physical accessibility (from the nearest city—Rajshahi), existence and length of the microfinance programs, and number of women participating in the microfinance program. Since the main purpose of the fieldwork was to have a complete in-depth understanding of the selected cases, purposive sampling sizes were achieved through the 'theoretical saturation technique' (i.e., the marginal case did not bring additional insights to the research questions). Yin (1994) argued the evaluation of case studies should be based on the theoretical construct, not on the size of the sample, as was done in conventional quantitative strategies. Thus, the respondents were chosen through purposive, network sampling for detailed interviewing, considering the purpose of the study that did not require representative large sampling. A total of 50 women beneficiaries were chosen for this research. Data was collected through the following data collection techniques:

### **In-depth Interviews**

In the first phase, microfinance beneficiaries were chosen for one-to-one in-depth interviews in order to examine the impact of

the microfinance programs. The beneficiaries were selected according to their knowledge, experience, and period of involvement in the program. In the first instance, the researcher was introduced to the participants by the NGO staff, and the researcher then selected the respondents for further correspondence. Each and every Microfinance client was invited verbally to participate in the in-depth interview session. The researcher obtained a list of forty beneficiaries from the selected NGOs but felt to have achieved the 'saturation point' with the 30th respondent. One-to-one interviews with twenty women were conducted in their usual group meeting places. The main aim of the in-depth interview was to collect qualitative data to examine the level of impact of the microfinance on women's empowerment. Each interview session lasted approximately an hour and a half and was used to collect detailed case stories.

### **Focus Group Discussion**

In the second phase, a number of focus group discussions (FGDs) was arranged with the microfinance beneficiaries. The FGDs were conducted to gain an understanding of and compare the participants' views about the details of the two microfinance programs. The women from the first phase were requested and did agree to take part in the second phase. This method served a useful purpose. It was a tool for collecting more in-depth information since people, especially women, in Bangladesh feel comfortable talking in a group (so the expectation was

that they would add to their original one-to-one discussions). All in all four FGDs were conducted with twenty microfinance beneficiaries to explore and understand their views about the programs offered by the NGOs. Only five respondents were included in each group, so the participants could focus on the questions and avoid personal chatting. Each FGD took roughly 45–50 min.

### **Observation**

Observation refers to a technique which operates by systematically selecting, watching, listening, reading and recording behaviour and characteristics of living beings, objects or phenomena (Islam, 2008). The observation method was also used for collecting data from the rural women. This method was very useful for collecting actual data about respondents' behaviour and attitudes during the process of my interviewing. I tried to examine the respondents' thoughts and attitudes regarding the impact of CEP on their life particularly in respect of domestic violence.

### **Ethical Considerations in Data Collection**

Violating respondents' privacy may create a threat to their integrity and may cause emotional and psychological anxiety and should be avoided by any means. During her stay in Bangladesh, the researcher lived in a secured environment that ensured information she collected was stored carefully and confidentially. Participants were assured that no identifying information

would be published in the thesis unless prior approval was given, their privacy would be maintained, and the confidentiality of any personal information shared by them would be respected. She clearly described the purpose of my interviews, explaining that their participation would not affect them in any way and she also informed them that the information would be used for academic purpose only. The researcher explained that she was in no way affiliated with any NGOs and reassured them that they could feel free to explain any changes to their lives brought about by their involvement in the NGO programs.

All interviews she recorded were retained by me and were not made available for any other purpose. The Letter of Introduction and Consent Forms stated the purpose of the research. As a woman of Bangladesh, the researcher was very careful to maintain the women's security and the safety of the research data. Initially no women participants were approached directly. All interviews with the participants were audio-taped with their permission and later transcribed and then translated into English. Photographs were taken only with their full consent. Any identifying information was removed, and the typed-up file stored on a password protected computer to which only she had access.

The participants were anonymous and although she endeavoured to always maintain their anonymity, due to the specific groups of women who were receiving microfinance, this was sometimes difficult

to achieve during data collection. To address this issue, throughout the thesis she has used codes to describe each woman's narratives in order to ensure anonymity.

## RESULTS AND DISCUSSION

Despite this careful planning, 10% of respondents were still not very comfortable sharing their own stories, but they still articulated their grievances against men's bad attitudes towards women. Whilst participating in a series of individual in-depth interviews, the respondents reported that the majority of village women who were involved in CEP programs had a changed attitude and perception towards their husbands. They identified '*Polli Shomaj*' as an important factor that contributed to an increase in their status within the family as well as to their husbands' behavioural change towards them. Most of the women also identified many direct and indirect benefits of their involvement in '*Polli shomaj*'.

The author categorized 50 respondents into four different groups on the basis of the length of membership in Community Empowerment Program:

Table 1 demonstrates that 28 (56%) women respondents of group 1 are involved in CEP program for 4-5 years. Twelve (24%) women respondents are involved in this program for 3-4 years. Three (12%) respondents of group 3 are involved in this program for 2-3 years while rest 04 (8%) respondents of group 4 are involved in this program for 1-2 years.

Table 1  
Groups based on length of membership

Category of women respondents	Length of Membership in CEP	No of respondents	Percentage
Group-1	4<5 years	28	56%
Group-2	3<4 years	12	24%
Group-3	2<3 years	06	12%
Group-4	1<2 years	04	8%
Total		50	100

### What Changes Have Occurred in Women's Attitude and Action towards Violence? How?

The author was unable to uncover further evidence about domestic violence through the focus group discussions as participants did not want to disclose information about such a sensitive issue in front of others. The information she gathered regarding male violence came from individual in-depth interviews only. The study revealed that before joining CEP programs, women were afraid of their husbands and some were beaten by their husbands.

The interviews also revealed that the women who received training for both for themselves and their husbands tended to experience less spousal physical violence towards them. One of the respondents from group 1 said:

*I am a five-year old member of a CEP program. I can remember my husband's attitude five years back. He used to abuse me verbally (gala gali) and sometimes hit me physically. But when we attended some*

*training together he started to change his attitude towards me. Since then my husband started to behave politely as he understood what he did was not right. (CEP-28, in depth interview on 6 Jun 17)*

Another woman from group 2 reported that:

*I got married eight years back. My husband used to be verbally abusive. After being a member of polli shomaj, NGO apa (sister) tells us about our righth. I am now able to explain to my husband that his verbal abuse towards me is unacceptable. He now speaks more politely to me and shows me respect. (CEP-26, in-depth interview on 25 Jun 17)*

However, there still remained some women respondents (20%) from group 3 and 4 who acknowledged that they did not dare protest against violence and still abided by the prevailing social norms and practices.

*I have been married for ten years and have two daughters in my family. My husband sometimes rebukes me in front of my daughters. Sometimes my husband's attitude hurts me but I know some women in the village whose husbands beat them quite often. I am happy that at least my husband does not beat me. I can't complain that he scolds me as he provides us with food. (CEP-25, group 3, in depth interview on 25 Apr 17)*

*My husband is my guardian. He provides for my children and meets their needs. Although he sometimes hits me with a stick, he also goes to doctor to get medicine for me when I need it. Since he is taking care of me I have to obey him. I won't complain that he beats me because he is an 'umbrella for my life'. Who will give us food if he is not there? (CEP-02, group 4, in depth interview on 10 Apr 17)*

The data confirm that 20% women respondents still acknowledged their husbands as their guardians and accepted their husband's perceived right to inflict physical violence if they made mistakes. Such attitudes and beliefs are shaped by a gender biased social structure that does not allow women to think differently. Findings of the field investigation reveal

that the majority of the respondents are very determined to challenge such social norms by protesting against masculine domination and domestic violence. I found most of the women to be very conscious of their rights and to have strong opinions against domestic violence. The women challenged masculine domination and supremacy in families where males make all the decisions and women have no rights. Their protests against male domination challenged the social norm. The Community Empowerment program influenced the women's changed practices in a number of ways.

The findings reveal that group 1 and group 2 are more proactive to challenge domestic violence against them. I started to explore what are factors except the length of service that are responsible for women's transformed attitudes towards violence. Table 2 demonstrates the categories of women respondents on the basis of education and training.

Table 2 demonstrates that 50% respondents of group 1 and 20% respondents of group 2 have training and education up to class 4 and 2 respectively. Those women and their husbands received social training/awareness raising training. Education also enables them to establish their rights and protest against violence through training and advocacy. On the other, women respondents of group 3 and 4 only know how to sign and did not receive any training from NGOs. The above field data can be justified by following qualitative evidences that achieved through some case stories. Field data demonstrates that CEP respondents', who were more

Table 2  
*Groups based on education and training*

Categories of women respondents in terms of education and Training	Education	Training (women and their husbands)	Respondents	Percentage
Group- 1	Up to Class 4	Yes	28	50%
Group-2	Up to Class 2	Yes	12	20%
Group-3	Signature only	No	06	10%
Group-4	Signature only	No	04	20%
Total			50	100%

Source: Field research

educated and trained, were more able to protest against violence not only at household level but also at community level. Moreover, their husbands supported their actions since they also received those training with their wives and consequently their attitudes towards violence were transmuted.

It is important to look at whether they can challenge violence at the community level either individually or collectively or, in other words, whether they are able to work collectively with other women in the community to protect each other from domestic violence. The field study revealed that the woman who lived in the Ashgram village was badly injured by her husband. Her husband occasionally assaulted her physically. She wanted to take legal action against her husband but when he became aware of her plans, he tried to kill her. His attempt to murder his wife was unsuccessful as a group of the women from *polli shomaj* went to the home and broke the door down to save her. Although the woman had serious head injuries and was bleeding, her husband

left her inside the home. When the leader of a nearby *Polli Shomaj* was made aware of the incident, she provided their collective fund<sup>2</sup> to cover the cost of her treatment. Unfortunately, the fund was not enough to transport her to the hospital for the necessary treatment, so some group members of *Polli shomaj* took the initiative to take her there. After her admission, the group members became aware that the woman needed surgery that would require more money. Women respondents from group 1 and 2 then hurried back to the village to raise more funds for her surgery.

Although more women were needed to collect funds, unfortunately only ten respondents from group 1 and 2 came forward to join the effort. Some women respondents refused to be involved in the collective attempt to save the woman. The

<sup>2</sup>Collective fund refers to a special type of fund which is collected from every member of the group once a fortnight. Every member of the group is obliged to hand over 2 *Taka* to the group leader for the fund which is used for providing various welfare activities for the community, especially vulnerable females.

group then canvassed other village members to raise funds and finally collected the full amount necessary for the surgery. One of the members of *Polli Shomaj* stated that:

*The woman had to remain in hospital for five days so some of the members of our group organized a roster to provide the food. We needed more people to do our job more efficiently but many women from our polli shomaj refused to help us. Luckily a few women who were more educated and received different awareness raising training at times, went to the local schools daily to collect donations and the woman had successful head surgery and was fully cured. We went to the NGO leader and filed a complaint against the woman's husband. BRAC's top level officials along with our group of women visited the woman's parent's to ask whether they were happy for us to pursue legal action. After gaining their approval, BRAC sought legal action against the man pertaining to his domestic violence. Following that the man became scared and with a newly acquired respect for his wife he went to the hospital to take her back home. I believe membership of Polli Shomaj gives us courage as a group*

*and helps us to be aware of our rights and duties. (CEP-12, FGD on 12 May 17)*

The field research revealed that another woman of the village was often physically assaulted by her cruel husband and mother-in-law. The woman went to a nearby women's *polli shomaj* to make a complaint against her in-laws. She also wanted to go to *Union Parishad* to seek a legal judgment but an eight *Polli shomaj* members of group 1 and 2 used their influence to arrange *shalish* with village leaders to help find a solution to their problems. The husband was penalized and was bound to follow the ruling. Now the couple is leading a happy life. They invited other women of *Polli shomaj* to join in *shalish*, yet many of them refused to participate. When one of them (CEP-11) from group 3 was asked the reason why she didn't join in *shalish*, she answered: "It's their personal matter and I don't think it is wise to become involved in others' personal matters". Therefore, it seems that it is usually only a particular group of women respondents who are willing to take part in challenging actions.

### **Policy Implications**

The field study reveals that women respondents of group 1 and 2 were more active in protesting against violence not only at home but also at community level. First factor was their length of membership which has a positive effect on outcomes. Transformation of attitudes and translating attitudes into actions is a continuous process of change and the study revealed that the

women's action towards violence against women was greatly influenced by the length of time they were members of CEP program. The longer their membership, the more opportunities they had available to them to increase their self-development. These opportunities brought about positive changes to their lives and enabled them to become more empowered. The study revealed that the women in groups 1 and 2 were involved in CEP for a longer period of time (up to 5 years) than those of other groups. These women received more training opportunities because they were more well-known to the NGO officials. They also held leadership positions in the Polli shomaj.

Apart from this, two important factors are education and training. Education also enables women to have an impact at the immediate family, neighbourhood and community levels. Higher literacy levels bring more participatory space for women in their families. The comparatively well-educated women are also selected for training and this helps develop and increase their leadership skills. These women can more easily influence their husband's attitude and behaviour towards their empowerment. The author found that all women of groups 1 and 2 had received social training from NGOs and they are comparatively more active in protesting violence.

With regard to women respondents, the research indicates that where husbands were comparatively better educated and had received awareness raising training

from NGOs, they tended to support their wives' activities more than those who were illiterate and had no training. The study suggests that husbands of the women in groups 1 and 2 met these criteria more often than husbands of the women in the other groups. The husband's training was also a factor. Therefore, awareness raising training for women and their husbands should be the key focus of all CEP programs

### **CONCLUSION AND FUTURE RESEARCH**

The paper contributes to the content since most of the earlier studies focused mainly on the impact of microfinance program of NGO on women's economic empowerment, ignoring the fact that empowerment is a complex construct that has to be looked at not only from economic perspective but also social perspective. Women's attitudes and actions towards violence is one of the key indicators of women's socio-political empowerment. While many researchers have so far been conducted on microfinance program of BRAC, there is hardly any research on CEP program of BRAC. Therefore, the findings of this research would contribute to the theory and practice of NGO and Gender mainstreaming in Bangladesh. Most importantly, it reveals that social/ awareness raising training is fundamental and should be a compulsory training component of all CEP programs of BRAC. Husband's training is also important and should be provided to as many beneficiaries' husbands as possible.

The field data substantiate the fact that the training programs create significant positive impact of the program participants and contribute to power transmutation. The study was restricted to one upazila only. Similar research could also be conducted with wider coverage in a similar socio-economic context.

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## **Triple Helix Model to Improve Financial Literacy of Students in Faculty of Economics**

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### **ABSTRACT**

This study is aimed to reveal financial literacy among students and efforts to improve the financial literacy. This study used a mixed method. A quantitative approach is used to rate students about financial literacy of six components: insurance, stock market, financing, pension fund, pawn, and banking. The result showed that the majority of students was in the category of sufficient literate and also showed that financial literacy was the lowest in the insurance sector. This is partly caused by a lack of education about insurance in the Faculty of Economics. In order to improve financial literacy, especially in the field of insurance, we used triple helix model of the relationship between the University, Government and Financial Industry. In University, we can create an effective learning model positively correlated with the understanding related financial product where the financial product is a component of financial literacy. The Role of Government in this context is the OJK as overseeing and regulating the respective regulations of the financial industry. Financial Industry conducted socialization for students and society to make people believe more in their products. The cooperation of these three sectors are important to create a good synergy among parties related to financial literacy.

*Keywords:* Financial education, financial literacy, financial products, triple helix model

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### **INTRODUCTION**

Financial literacy plays a great role in our environment nowadays. Financial literacy defined as the knowledge of basic financial investment concepts such as inflation and risk diversification and the capacity

to do calculations related to interest rates (Lusardi & Mitchell, 2011) and the ability to make simple decisions regarding debt contracts, in particular how one applies basic knowledge about interest compounding, measured in the context of everyday financial choice (Lusardi & Tufano, 2009). The Organization for Economic Cooperation and Development (OECD) started an inter-governmental project in 2003 with the objective of providing ways to improve financial education and literacy standards through the development of common financial literacy principles. In March 2008, the OECD launched the International Gateway for Financial Education, which aims to serve as a clearinghouse for financial education programs, information and research worldwide. The continuous effort in improving financial literacy is not only in Indonesia but also around the world. In Asia Pacific context, The Australian Government established a National Consumer and Financial Literacy Taskforce in 2004. In Singapore, the National Institute of Education Singapore established the Inaugural Financial Literacy Hub for Teachers. In Indonesian context, OJK (Financial Authorities Services) concern in improving financial literacy.

A low level of financial literacy can lead to many financial problems of an individual such as high debt, high expenses compared to income, psychological problems, crime in financial sectors and many more. In Indonesia, we heard a lot of problems related to fraud, Ponzi schemes, and high debt. These problems come from a low

level of knowledge of financial literacy. It is not always a result of low income but how people manage their income properly.

Financial education and financial literacy campaign concern about two important things. First, they look forward to complex global financial markets that make the 21<sup>st</sup> century different from previous eras and there are more financial products to choose among with a wider array of features (Hogarth, 2006). In addition to improving the livelihood of people, the ongoing economic development is also aimed at creating intellectual and visionary Indonesians. Therefore, economic development is not merely implemented through physical infrastructures that are instantly tangible to public in general, but also through developing the thinking capacity of Indonesian people. One effort to improve thinking capacity is by developing people's capacity to better manage their finances. This ability needs to be learned as early as possible because having this ability will provide a better understanding and behavior towards the usage of money and finance.

Through Financial Literacy, the public is expected to gain understanding on financial services and the products and services that they offer, including features, benefits, and risks, as well as the rights and responsibilities of stakeholders. In addition, the people is expected to gain more skills in utilizing financial products and services. Furthermore, increased utilization of financial products and services according to individual needs is expected. This condition

will in turn, encourage and motivate the financial service sector to educate and to develop financial products and services that are tailored to the needs of the various population groups. Jarboui (2015) showed that a lower level of financial literacy was one of the main factors related to the under diversification. In fact, households with lower financial literacy may fail to appreciate the advantages of portfolio diversification. Financial literacy can affect the investors behavior (Klapper, Lusardi, & Panos, 2013). The higher financial literacy, the more investor cares about their portfolio diversification.

OJK (2013) explained that Financial Literacy brought a huge benefit to the public in general, considering that with Financial Literacy, the public: a) Would be able to determine and utilize financial products and services that are suitable to their needs; b) Would have the capacity to conduct better financial planning; c) Would avoid shady and illegitimate investment activities and financial instruments; d) Would gain understanding on the benefits and risks of financial products and services

The National Survey on Financial Literacy suggests that the higher the level of education that someone attains, the higher they will score on the Literacy Index. Table 1 shows that a person with no formal education scores the lowest in the Financial Literacy Index at 16.3%, compared to someone with educational background. Those with a higher education degree score the highest at 56.4%.

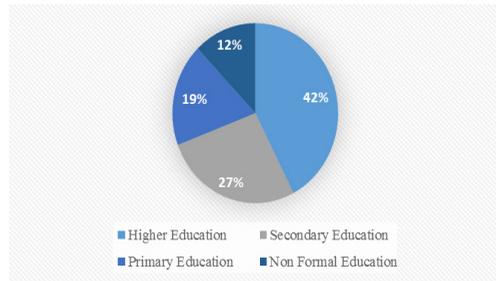


Figure 1. Financial Literacy Index based on education level

Source: National Survey on Financial Literacy

One of the components of financial literacy is the understanding of banking and other financial institutions products. This research will focus on the knowledge of students in the area of insurance, stock market, financing, pension fund, pawn, and banking. One of the reasons is that the students we examine have already learned about banking and other financial institutions subject, so we assume that their literacy in this topic will be high. Not only they understand the concept but they will apply it in their daily lives and share it with the people close to them so we can expect a multiplier effect in financial literacy. Another reason why we choose students as our respondents is because in 2018 target and activities of increasing financial literacy by OJK is focused on students. Therefore we would like to know the condition of our students so it will be easier to give such recommendation for government in improving financial literacy for our students.

Table 1  
*Financial literacy target*

Priorities	2014	2015	2016	2017	2018
Target	Housewives SMEs	Students College students Professionals	Employees Retirees	Housewives SMEs	Students College students Professionals
Activities	Conduct Financial Literacy education/campaign activities	Conduct Financial Literacy education/campaign activities	Conduct Financial Literacy education/campaign activities	Conduct Financial Literacy education/campaign activities	Conduct Financial Literacy education/campaign activities
	Build Education Infrastructure	Build Education Infrastructure	Strengthen Financial Literacy infrastructure Conduct National Survey on Financial Literacy Conduct Evaluation of Financial Literacy Programs		

Source: OJK (2013)

## METHOD

The respondents of the research were students of development economics program, Faculty of Economics Universitas Negeri Malang. From the purposive sampling, we found 44 students to be our respondents from 298 of the total population. The categories of students that were eligible for our research are as follows:

**1. Students must be at least in the second year of study**

**2. Students must participate in at least two courses of financial economics**

**3. Students must have the willingness to be interviewed**

We gave them questionnaire regarding to their knowledge of six main products of insurance, stock market, microfinance, pension fund, pawn, and banking. We developed this research by the instrument of Financial Services Authority of Republic Indonesia [OJK] (2013) and asked them basic questions about insurance, stock market, financing, pension fund, pawn, and banking. **We understand that it cannot**

**generalize all population but at least it will give some insight for us to understand the level of financial literacy**

We categorized students as well literate if someone had answered eight to ten items correctly in each category. If they could answer six to seven items correctly, they were sufficient literate. If they could answer four to five items correctly, they were less literate. If they could answer less than three items correctly, they were not literate. Well literate is having the knowledge and confidence of financial services and their products and services, including the features, benefits and risks, as well as the rights and responsibilities with regards to financial products and services, and having the skills in utilizing financial products and services. Sufficient literate is having the knowledge and confidence of financial services institutions and their products and services, including the features, benefits and risks, as well as the rights and responsibilities with regards to financial

products and services. Less literate is only having knowledge of financial services institutions, as well as some knowledge of financial products and services. Not literate is not having the knowledge of and confidence in financial services institutions and their products and services, as well as not having the skills to utilize financial products and services.

**RESULTS AND DISCUSSION**

Financial literacy is indicated from awareness, understanding the financial product, financial product ownership, and attitude and behavior necessary about financial decisions. The financial product consists of insurance, stock market, financing, pension fund, pawn, and banking that is described in more detail in the following figure. Based on the figure 2, in general, financial literacy of students falls into the category of well literate in the stock market, financing, pension fund, and banking. In the questionnaire

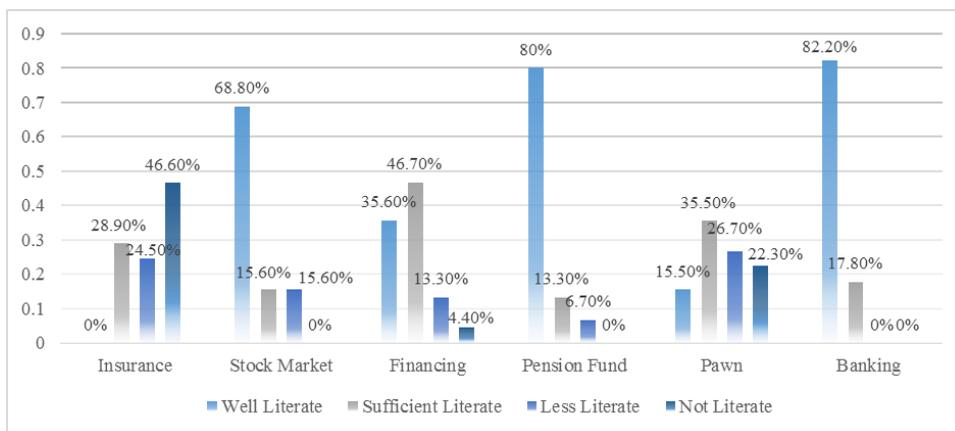


Figure 2. Financial literacy among university students in Faculty of Economics  
 Source: Data processed, 2016

relating to insurance, the majority of students in the not literate category is 46.60%, this means that students are only able to answer and understand less than three questionnaires. Another result showed that 28.90% of the category is sufficient literate and 24.50% is in the less literate category. Financial literacy in the insurance sector is the lowest among other sectors.

From the result, we found an interesting phenomenon that the literacy of insurance was quite low among these students. No students were categorized as well literate and the highest percentage of students were categorized not literate. Even though it is not surprising since the knowledge of insurance in Indonesia is very low. Survey showed, that public awareness of insurance in Indonesia is minimal. The following is an illustration of insurance awareness in most countries in Asia: Japan 1 to 6, meaning that an average of one person in the country of Japan had six insurances. Singapore 1 to 4 means an average of one person Singapore has four insurances. Malaysia 1 to 2 means an average of one person has two insurances. Indonesia 1 to 0.02 means that from 100 people in Indonesia only two who have insurance (Yosiki, 2015).

Unlike in developed countries, where the insurances are mandatory for all citizens, in Indonesia nearly a third of Indonesia's population has no insurance that can protect them from accidents, illness, or guarantee for the future education of children. This is because the insurance investment is still considered a luxury for the lower middle class. In addition, the premiums are considered too high

and the lack of public knowledge about the importance of insurance. In 2016 the government of Indonesia will launch microinsurance products, which took the market segmentation of the lower middle class people with an income of no more than Rp. 2,5 million per month. The launch of microinsurance will be a new milestone in the insurance industry in Indonesia, because low income people also need protection, so as not to fall into poverty, in the case of an accident on the breadwinner, crop failures, or any other disaster. Many of the factors that cause people to have a minimal interest for insurance:

Welfare or the low income communities, made the insurance is not a necessity or a lifestyle. Because there are many necessities that need to be fulfilled, people do not care about protection for themselves, their families and possessions. They barely met their daily needs.

Cultural factors. Many thinks that the future's later, the important thing is to meet the needs now. It can affect the public awareness of the importance of insurance. Moreover, many parents generally still leaning their hopes for their children as if the child is considered as an asset to guarantee their old times.

Socialization about insurance. Socialization of the importance of insurance is still relatively low, causing an effort to educate the public about financial literacy is still limited. In fact, the socialization is very important to raise public awareness about insurance.

### Triple Helix Model to Improve Financial Literacy

In this research, the category of financial literacy is low in the field of insurance. Such conditions would need the synergy not only from college, the government, nor from the industry alone, but the whole of the three institutions above. Triple Helix Model is one of the alternatives proposed by researchers in an effort to increase financial literacy. The detailed model developed as follows:

Intercept A is cooperation between the University and the government (in this case OJK). In order to increase financial literacy we put together a learning framework by inserting a core of financial literacy related subjects into various levels of education. The core mentioned by the OJK (2015) covers money and transactions, planning and managing finances, risk and reward, and financial landscape. Hogarth (2006)

designed a learners financial education center programs that requires planners take into account at least four distinct elements: 1) The topics, does the learner need information and education about general cash flow management, credit, saving, investment, retirement planning, estate planning, or some combination of reviews for those topics 2) The audience, is the program targeted to the general public, youth, low income, first time home buyers, pre retirees, employees of a particular firm, or someone else 3) Learning styles, is the pedagogy set up for visual, auditory, and kinesthetic learners 4) Behavior stage, what is the learner’s current stage of behavior change? Learners are most targets in the contemplation, preparation, action, maintenance or states.

Effective learning model that properly structured to involve students actively in

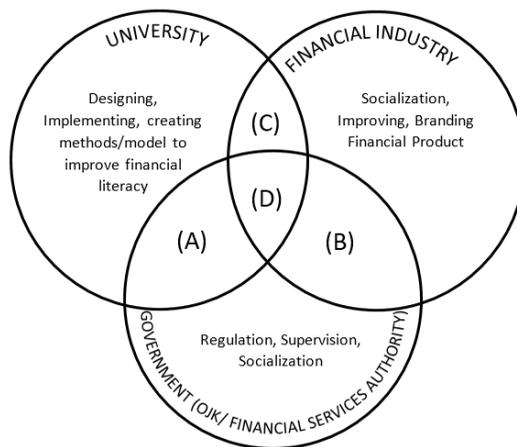


Figure 3. Triple Helix Model in improving financial literacy  
Source: Modified form Witjaksono (2014)

learning will form a good understanding of the formation of financial literacy. Research by Wulandari and Narmaditya (2016) explains that the simulation model can improve students understanding of capital market. Other forms in an effort to increase financial literacy is by organizing seminars, lectures and workshops in collaboration with OJK. Intercept B shows the need for cooperation between the Government and Financial Industry. This cooperation is in an effort to reduce the problems related to how to have a healthy financial system, so it will increase public confidence in the use of financial products. In this research, the understanding and use of insurance products is still low. This is because the public's understanding of insurance still not good and there is a bad mindset related to asymmetric information (Wulandari & Narmaditya, 2015).

Intercept C shows the relationship between the University with the Financial Industry. The model directly through the introduction of cooperation in the form of simulated banking, insurance, capital markets become an effective model in financial literacy. In this context at the State University of Malang, there are two laboratories of financial products in banking and capital markets. It showed a positive correlation with students understanding of knowledge related to financial products. In addition, another form of this cooperation is through workshops, guest lectures and seminars.

In intercept D there is a collaboration between the University, Government, and

Financial Industry. The cooperation of these three components can improve financial literacy. University designing and creating methods/models of learning, financial industry actively participated as described in the intercept A and also the socialization and cooperation with the university. The role of Government in this context is OJK as regulator of the financial industry. Certainly, a nice cooperation of those three organization will manifest a sound financial system in the context of macroeconomic and financial literacy and a good understanding that benefit each individuals. Lusardi (2007) revealed that households with lower levels of financial literacy are unlikely to plan for retirement and consequently accumulate less wealth.

## CONCLUSION

Financial literacy is defined not only the understanding of financial products but also the awareness, attitudes, and decision making in everyday life. Understanding financial literacy continues to be made in improving the welfare of individuals. During this time the efforts already made by OJK (Financial Services Authority) to continue a campaign related to the socialization of financial literacy through online media as well as other efforts by issuing a series of literacy. Triple helix model is adopted in improving financial literacy. In this model there are cooperation from university, government, and financial industry. University serves as a designer, implementer, methods maker in the learning process, financial industry contributes to socialization, improving

financial and product branding, and the role of government (OJK) is on the regulation and supervision. Through this cooperation, financial literacy will be improved.

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## **Analysis of Factors for Determining Suitable Site for Giant Freshwater Prawn (*Macrobrachium rosenbergii*) Farming Through the Local Knowledge in Negeri Sembilan of Peninsular Malaysia**

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### **ABSTRACT**

Prawn farming is one of the most important sectors emerging in the aquaculture industries in Malaysia which requires the consideration of the factors determining its spatial distribution. However, institutions charged with the responsibility of land suitability classification often neglect the incorporation of the local knowledge in their land use planning. The aim of the study was to identify the factors that determine the suitability of a site for giant freshwater prawn (*Macrobrachium rosenbergii*) farming in Negeri Sembilan of Peninsular Malaysia through the local knowledge. Data were collected from 64 prawn farmers and 10 fisheries officers in Negeri Sembilan using a questionnaire. Twelve factors were identified comprising water qualities (distance to sources of water, water temperature, water pH, distance to source of pollution), soil characteristics (land use type, slope, elevation, soil texture) and infrastructure facilities (distance to roads, distance to market, distance to electricity,

distance to fry source). Pearson correlation and multiple regression statistics were applied to analyse the data. The correlation result revealed that giant freshwater prawn farming was greatly affected by water qualities with  $r(62) = 0.669$ ,  $p = 0.000$  values, soil characteristics  $r(62) = 0.559$ ,  $p = 0.000$  values, and infrastructure factors  $r(62) = 0.566$  with  $p = 0.000$  values. The regression

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analysis indicated that the coefficient of determination  $R^2 = 0.951$ , meaning that 95.1% of suitability is affected by the water quality, soil characteristics and the infrastructure facilities. Therefore, the determination of the factor for a suitable site for prawn farming can be achieved through the local knowledge.

*Keywords:* Analysis of land factors, giant freshwater prawn farming, local knowledge, Negeri Sembilan of Peninsular Malaysia, site suitability

## INTRODUCTION

Organisations charged with the responsibility of land suitability classification often neglect the incorporation of the local knowledge in their land use planning. Lack of incorporating the local knowledge resulted in wrong suitability estimations in the past (Calvo-Iglesias, Crecente-Maseda, & Fra-Paleo, 2006; Chambers, Corbett, Keller, & Wood, 2004). The local knowledge is very frequently built on a collective knowledge of all aspects of land concurrently. The local indigenous understandings of a specific environment in which the people live include its physical, biological, and socio-economic aspects, and the way these interrelate. This is considered appropriate for identifying land factors and requirements for any land use. The locals' perspective of a 'good' land may include aspects that result in good crop yield or which give subsistence and/or profit.

Giant freshwater prawns (*Macrobrachium roesenbergii*) are found throughout the tropical and the sub-tropical countries of the world (New & Kutty,

2010). It is the largest commercial species of the prawn, in which the male may reach a total length of 320mm, while the female is 250mm (New, Tidwell, D'Abramo, & Kutty, 2009). The giant freshwater prawn culture has tremendously expanded in several countries of the world in the recent decade (Abdolnabi, Ina-Salwany, Daud, Mariana, & Abdelhadi, 2015). The global production of the prawn has risen to 444,000 tonnes in 2009, valued at USD 2 billion (New & Nair, 2012).

In Malaysia, the giant freshwater prawn is called 'Udang Galah' (Iliyasu, Mohamed, & Terano, 2016). This species of the prawn has drawn much attention because of its generous size, its ability to resist diseases, and its high demand both in the local and international markets. Apart from contributing to the national economic development, prawn farming provides employment, income, and food protein for the rural communities in Peninsular Malaysia. From the statistics record of the Department of Fisheries (DoF, 2016) the production of prawns in Malaysia was 281 tons in 1998; it increased to 653 metric tons in 1999, and by the year 2000 it rose to its peak with 1338 metric tons. After the year 2000, production dwindled. The year 2006 experienced a great decline to 194 metric tons, and by 2014 the production was at 398 metric tons. This decline in production could be attributed to inadequate understanding of land factors, including physio-chemical and topographic conditions, soil, water, climatic, and the socio-economic characteristics affecting the suitability of the site for prawn

farming (Iliyasu et al., 2016; Liong, Hanafi, Merican, & Nagaraj, 1988). The giant prawn farming industry has an immense potential, particularly given the valuable feature of accessible favourable natural environments, such as ponds, rivers, lakes, loamy soil, suitable climate, and species' nativity to the country.

Previous studies have not examined land suitability factors from the local knowledge. Hasnita et al. (2015) looked at the constraints for farming prawns in Malaysia and found that the farmers were constrained due to their socio-economic background, despite the natural potential of prawn farming. Iinuma et al. (1999) examined the technical efficiency of carp pond farming in peninsular Malaysia, revealing that carp farming was affected by the seed ratio per ha, labour, feed ratio, and the extensive farming method practiced, which intensive and the semi-extensive methods were found to be more efficient in the carp farming in Peninsular Malaysia. Iliyasu et al. (2016) investigated the factors affecting the technical efficiency of cage fish culture in Peninsular Malaysia and observed that production and feed costs were increasing; therefore, farmers abandoned fish farming for other occupations, leading to declining production. Despite the Malaysian government's financial and input supports to the prawn project, specifically, and fish farming, in general, prawn farming is still facing challenges, and some farms were closed or abandoned. Thus, this study is meant to bridge the knowledge gap by examining land factors affecting the

prawn production from the indigenous or local perspective. Therefore, the purpose of this study is to identify the land factors that determine the suitability of a site for giant freshwater prawn (*Macrobrachium rosenbergii*) farming in Negeri Sembilan of Peninsular Malaysia through the local knowledge.

## MATERIAL AND METHODS

This section presents the methodologies used for the study. It comprised the study area and sampling, data collection and source, weightages assigned to the land suitability factors for prawn farming and the specification of the model applied for analysis.

### The Study Area

Negeri Sembilan is located at latitude 2<sup>o</sup>.43' 54.5268" N, and longitude 102<sup>o</sup>.15' 9.0072" E, covering a land area of 6,645km square in the Western Peninsular Malaysia with the capital in Seremban (Figure 1). The state is bounded by the states of Selangor at the northeast, Pahang at the north Johor at the east, Melaka in the South, and the South China Sea at the west, with a population of over 1.7 million in 2016, according to statics department of Malaysia.

### Sampling Technique and Sample Size

A three-stage sampling technique was applied to select the respondents based on the concentration of prawn farming activities in the study area. Five out of the seven districts were purposely selected comprising Seremban, Port Dickson, Kuala

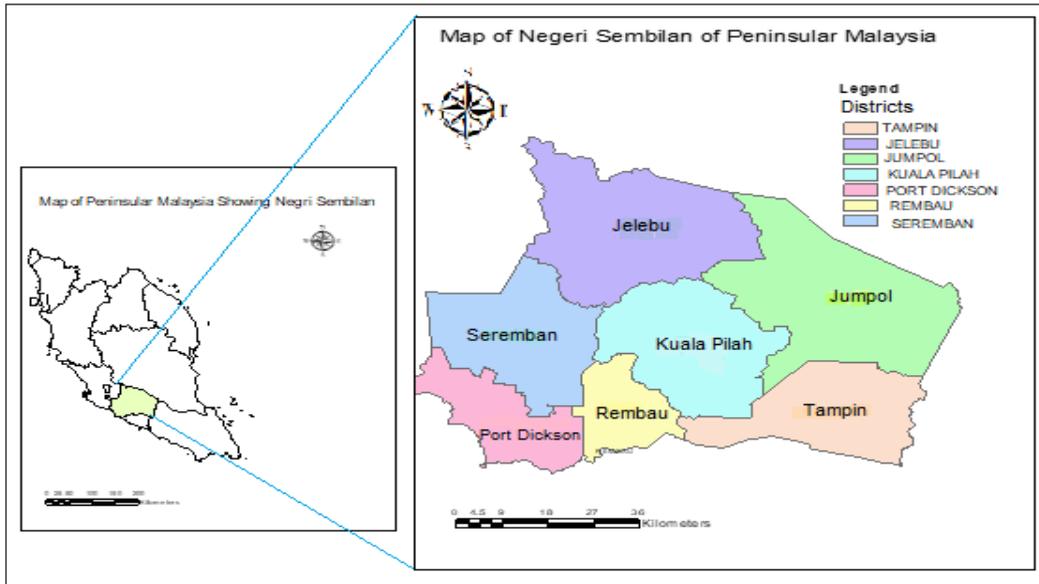


Figure 1. Map of Peninsular Malaysia showing Negeri Sembilan

Pilah, Rembau, and Jelevu as presented in Table 1. From each of the five districts five major prawn producing cells were randomly selected. From each of the cell, 3 prawn farmers who were involved in prawn farming were randomly selected for the study, giving a total of 75 respondents. Ten fisheries officers from the study area were selected for interview.

The descriptive survey approached was used for this study. The sampled population used for the study includes 75 prawn farmers and 10 fisheries officers from the study area as key informant, giving a total study population of 85. Since some of the farmers were not present during research and others abandoned farming, 64 farmers were contacted. Therefore, the study sample

Table 1  
List of the sample districts and the respondents

S/No	District	Number of cells per district	Number of farmers per cell	Number of respondents per district
1	Seremban	5	3	15
2	Port Dickson	5	3	15
3	Kuala Pilah	5	3	15
4	Rembau,	5	3	15
5	Jelevu	5	3	15
	Fisheries officer			10
	Total			85

size is 74 people. The respondents for this study were obtained from the list of prawn farmers from the Department of Fisheries regional office Negeri Sembilan, Malaysia. The questionnaires method was used to collect the relevant data from the prawn farmers while informant interviews were conducted with the fisheries officers. To establish the measure of relationships and find meaning, descriptive, correlation and multiple regression statistical analysis were used.

**Data Collection and Source**

The data for this study was collected via questionnaires and oral interviews from the sampled farmers on their knowledge of the land factors affecting the prawn farming. The observation of the researchers was used to complement the information gathered. Informant interviews were conducted with the fisheries officers to elucidate answers where the farmers’ knowledge was limited. To validate the questionnaires, a pilot study was carried out, such that all the necessary corrections and adjustment were made on the

questionnaires with the aid of an expert in the field of land analysis from the Department of Geography, Faculty of Arts and Social Sciences, University of Malaya. The pilot study was conducted with five prawn farmers and three fisheries officers to test the validity and reliability of the questionnaires. Regarding the validity, corrections occurred on some of the questions for which the respondents were not certain of the exact responses required. For the reliability, the responses were coded and entered using the SPSS 23 model software, generating a reliability coefficient of 0.851; therefore, they are considered reliable. The reliability test was shown in Table 2. Subsequently, a total of 75 questionnaires were administered to the prawn farmers, although only 64 questionnaires were used for the analysis due to non-responses by some prawn farmers. All ten fisheries officers targeted responded to the interview in their offices. This represented 87.1% of the respondents, considered a very good response rate for making references (Denscombe, 2014) (Table 3).

Table 2  
*Reliability test*

Cronbach Alpha	Cronbach Alpha base on Standardised items
0.842	0.851

Table 3  
*Target population and response rate*

	Response frequency	Target respondent	Percentage
Prawn farmers	64	75	85.3
Fisheries officers	10	10	100
<b>Total</b>	<b>74</b>	<b>85</b>	<b>87.1</b>

### Weightages Assigned to the Land Suitability Factors for Prawn Farming

A proforma with a list of 22 factors was prepared to find out the weightage of the land suitability factors having a higher influence on prawn farming in the study area. A five-point “continuum of importance” was made to rate each factor: least important =1, less important =2, important =3, more important =4, and most important =5. These proforma were given to 10 officers from the Department of Fisheries, with the request to rate and assign weightage for each factor in terms of its degree of importance for most suitability for prawn farming. The average mean score for each factor was calculated based on the responses of the officers. The mean score was tabulated and rank was given in the descending order beginning with the highest score. The factors with first to the twelfth rank were chosen for the study. These factors were regrouped

to suit the three main categories of water qualities (distance to sources of water, water temperature, water pH, and distance to source of pollution), soil characteristics (land use type, slope, elevation, and soil texture) and infrastructure facilities (distance to roads, distance to market, distance to electricity, and distance to fry source) factors. Table 4 shows the ranks and the corresponding weightages attached to each factor.

### Specification of the Model

This study uses the correlation analysis and multiple regressions to estimate the factors affecting prawn farming in Negeri Sembilan of Peninsular Malaysia. They are mathematically expressed as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \quad (1)$$

Where

Y= Prawn farming suitability (dependent variable)

$\beta_0$ = Constant term

X1= Water qualities factors

X2= Soil characteristics factors

X3= Infrastructure facilities factors

$\varepsilon$ = error term

This equation ( $\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$ ) expresses the mean value of the land factors affecting prawn farming for a specific value of water qualities, soil characteristics, and infrastructure facilities. The error term ( $\varepsilon$ ) defines the features by the difference between each individual value of land factors affecting prawn farming suitability and their expected

Table 4  
*Prawn farming suitability factors for the study*

Factors	Weightages	Ranks
Land use type	4.10	1
Distance to market	4.10	2
Water temperature	3.70	3
Distance to water source	3.60	4
Slope	3.50	5
Elevation	3.50	6
Distance to electricity	3.30	7
Soil texture	3.20	8
Distance to pollutant source	3.20	9
Water pH	3.00	10
Distance to road	2.90	11
Distance to fry	2.70	12

values. To determine the regression model, the coefficient of determination  $R^2$  of the independent variables must be calculated. The  $R^2$  always lies between 0 and 1. The closer the  $R^2$  to 1 the better is the model and its prediction.

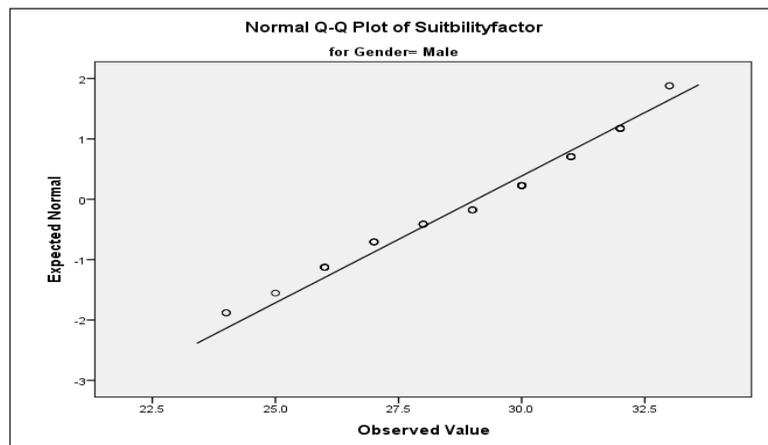
## RESULTS AND DISCUSSION

The study was aimed to examine the factors that influence the suitability of land

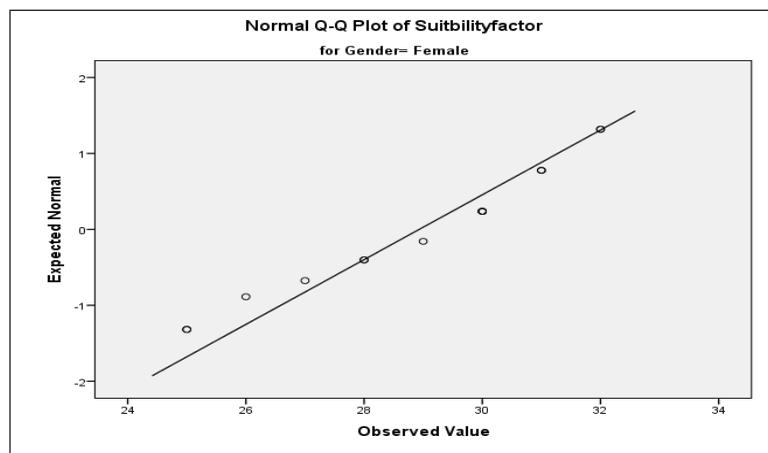
for prawn farming in Negeri Sembilan of Peninsular Malaysia through the farmers' indigenous knowledge.

### Test of Normality

The Shapiro-Wilk's test ( $p > .05$ ) and a visual inspection of their histogram, normal Q-Q plot (Figure 2(a) and (b)), and box plot show that the land suitability factors data for prawn farming were approximately



(a)



(b)

Figure 2. (a) Q-Q plot for males of land suitability factors for prawn farming; and (b) Q-Q plot for females of land suitability factors for prawn farming

normally distributed for both male and female farmers, with a skewness of -0.353 (SE = 0.340) and a kurtosis of 0.759 (SE = 0.668) for the males, and a skewness of -0.484 (SE = 0.580) and a kurtosis of -0.906 (SE = 1.121) for the females

### Demographic and Socioeconomic Characteristics

Table 5 indicates that most of the farmers were male, comprising 76.6 % of the respondents, while 23.4% were female; 87.5% were married. This shows that there were few women prawn farmers, which could be attributed to the socio-cultural feature of the locality. 21.9% were aged between 25 to 44 years old, 50.0% fall between 45-64 years, while 28.1% were 65 years and above. This indicated that prawn farming ventures were managed by the middle-aged citizen. Most of the farmers (85.9%) have formal education, ranging from primary certificate to university degree certificates, which were considered very relevant for adapting to new prawn farming technology (Uaiene, Arndt, & Masters, 2009). Only 14.1% of the farmers were without formal education. Prawn farming experience ranged from 1-5 years (1.6%), 6-10 years (25.0%), 11 years and above (18.8%), indicating that most of the farmers had experienced prawn farming. About 59.4% practiced prawn farming as a primary occupation, while about 75.0% combined prawn farming with other agriculture practices. Lands for farming were acquired through family heritage (57%), leased land (35.9%), and state land (6.3%). The 64

prawn farmers' ponds were also analysed; the average pond area was 0.36 ha for all sample farms. 76.6% of the farms had a pond area of less than 0.60h; the entire farm size of prawn ponds in Negeri Sembilan was somewhat small (Ang, 1990; Banu, Siraj, Christianus, Ikhsan, & Rajae, 2015). The average prawn production was 1500 kg/ ha per annum (64.1%) for all sample farms.

Table 5  
*Demographic and socioeconomic characteristics of farmers*

Variables	Frequency	Percent (%)
<b>Farmer's Age</b>		
25-44	14	21.9
45-64	32	50.0
65- above	18	28.1
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Gender</b>		
Male	49	76.6
Female	15	23.4
<b>Total</b>	<b>64</b>	<b>100</b>
<b>Level of education</b>		
No. education	9	14.1
Pri/Sec. educ.	15	23.4
Dip/HND	21	32.8
Graduate	19	29.7
<b>Total</b>	<b>64</b>	<b>100</b>
<b>Marital status</b>		
Not married	8	12.5
Married	56	87.5
<b>Total</b>	<b>64</b>	<b>100</b>
<b>Prawn farming Occupation</b>		
Primary occupation	38	59.4
Secondary occupation	26	40.6
<b>Total</b>	<b>64</b>	<b>100</b>
<b>Years of experiences as prawn farmer</b>		
Less than 1 year	1	1.6
1-5 years	16	25.0
6-10 years	35	54.7
11 years above	12	18.8
<b>Total</b>	<b>64</b>	<b>100</b>

Table 5 (continue)

Variables	Frequency	Percent (%)
<b>Pond size</b>		
Less than 0.2ha	4	6.3
0.2 -0.5ha	45	70.3
0.6 and above	15	23.4
<b>Total</b>	<b>64</b>	<b>100</b>
<b>Combine prawn with other Agricultural practice</b>		
No	16	25.0
Yes	48	75.0
<b>Total</b>	<b>64</b>	<b>100</b>
<b>Sources of land</b>		
Family land	37	57.8
Lease land	23	35.9
State land	4	6.3
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Quantities of prawn produce in a year per hectare</b>		
Less than 1000kg/ha/yr.	7	10.9
1000kg/ha/yr. - 1500kg/ha/yr.	41	64.1
1500kg/ha/yr. above	16	25.0
<b>Total</b>	<b>64</b>	<b>100.0</b>

**Soil Characteristics**

Table 6 presented the soil characteristics factors. Soil type of the sample prawn farm ponds were composed of 54.7% loam, most suitable for prawn farming; 31.3% clay; and 14.1% sandy, not suitable for prawn ponds. Regarding slope of land suitable for prawn farming, 76.6% preferred flat land, with a gentle slope between 0-5% considered most suitable for prawn farming, 20.3% land had a moderate slope, while 3.1% had high slopes. Similarly, 75.0% farm ponds were situated in low elevation of about 2-2.5 meters, considered as most suitable for prawn

farming; 18.8% were situated on medium elevation between 4-5 meters; and 6.3% were situated on either very high (>5m) or too low (<1m) elevation. For suitable land use types, 62.5% preferred agriculture/aquaculture land, 34.4% grassland/bare land, and 3.1% suggested mangrove forest/residential areas.

Table 6  
*Soil characteristics*

Variables	Frequency	Percent (%)
<b>Land use type</b>		
Agriculture/ Aquaculture land	40	62.5
Grassland/bare land	22	34.4
Mangrove forest/ residential areas	2	3.1
<b>Total</b>	<b>64</b>	<b>100</b>
<b>Slope</b>		
Gentle slope flat land (0-5%)	49	76.6
Moderately slope (5-15%)	13	20.3
High slope (above 15%)	2	3.1
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Elevation</b>		
Low elevation (2-2.5m)	48	75.0
Medium elevation (4-5m)	12	18.8
High elevation or too low (more than 5m or less than 1m)	4	6.3
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Soil texture</b>		
loam	35	54.7
Clay	20	31.3
sand	9	14.1
<b>Total</b>	<b>64</b>	<b>100.0</b>

## Water Quality

Water quality factors are presented in Table 7. The major sources of water for prawn ponds were 50.0% from streams/streams, 34.4% from springs and other underground water sources (bore holes and wells) and 15.6% from rainwater. Sources of water pollution were found to be dominated by agriculture farm pesticide (46.9%), rain water erosion (21.9%), domestic waste discharge (15.6%), and industrial waste discharge (15.6%). The water temperature was dominantly moderate at (54.7%, high at 32.8%, and low at 12.5%). Water pH of less than 4ppt or greater than 9ppt dominated, with 57.8%. 29.7% of farmers recorded the pH of 4-5ppt to 8-9ppt, considered moderately suitable for prawn farming; 12.5% of farmers recorded the water pH of their farms to 6-7.5 ppt, which was considered most suitable.

Table 7  
Water quality

Variables	Frequency	Percent (%)
<b>Water source</b>		
River/streams	32	50.0
Rain	10	15.6
Springs/bore holes/wells	22	34.4
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Source of water pollution</b>		
Industrial discharge	10	15.6
Agricultural waste discharge	30	46.9
Domestic waste	10	15.6
Rainwater erosion	14	21.9
<b>Total</b>	<b>64</b>	<b>100.0</b>

Table 7 (continue)

Variables	Frequency	Percent (%)
<b>Distance to water source</b>		
Less than 1km	44	68.8
2-4km	15	23.4
More than 4km	5	7.8
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Did you Measure Temperature and pH of farm pond?</b>		
Every week	17	29.7
Some time	33	51.6
Never	12	18.8
<b>Total</b>	<b>64</b>	<b>100</b>
<b>Water temperature</b>		
25–32 <sup>o</sup> c	21	32.8
15–25 <sup>o</sup> c	35	54.7
less than <12 <sup>o</sup> c or greater than > 32 <sup>o</sup> c	8	12.5
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Water pH</b>		
6 – 7 ppt	8	12.5
4–5ppt or 8–9ppt	19	29.7
greater than >9ppt or less than <4ppt	37	57.8
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Distance to source of pollution</b>		
Greater than 4km	22	34.4
between 2- 3km	29	45.3
less than 2km	13	20.3
<b>Total</b>	<b>64</b>	<b>100.0</b>

## Infrastructures Facilities

Infrastructures facilities (Table 8) considered for the prawn ponds include distance to roads, with about 56.3% farms located within 0-2km from the roads which was regarded as most suitable for prawn farming. 29.7% of farms were located about 2km

to 5km away from roads, while 14.1% of farms were located above 5km from the main roads. Farm ponds with accessibility to electricity sources within 0 to 2 km were 59.4%, with farms located within 2 to 5km at 34.4%, and farms located above 5km away at 6.3%. Regarding market accessibility and proximity, about 45.3% were located within 0 to 2km from the market, 34.4% located within 2- 5km from the market, and the remaining 20.3% farms were located more than 5km away from the market. About 71.9% of the farmers travelled for more than 12km to access post larva (fries) from the neighbouring state hatcheries, 20.3% travelled for 5 to 12km, while 7.8% travelled within 5km or within their farms to access their fries or seeds.

Infrastructural facilities and socio-economic features have major influences on the farms. That is, if all the natural conditions were made without the infrastructures, the farms would not yield any satisfactory results. Farmers added that the infrastructure factors (50%) rank first, before water (35%) and soil (15%) when it comes to ranking the preference of factors affecting prawn farming (Table 9).

Table 8  
*Infrastructures facility*

Variables	Frequency	Percent (%)
<b>Distance to road</b>		
within 0 - 2km	36	56.3
2km to 5km	19	29.7
above 5km	9	14.1
<b>Total</b>	<b>64</b>	<b>100</b>

Table 8 (continue)

Variables	Frequency	Percent (%)
<b>Distance to electricity</b>		
within 0 - 2km	38	59.4
2km to 5km	22	34.4
above 5km	4	6.3
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Distance to market</b>		
within 0 - 2km	29	45.3
2km to 5km	22	34.4
above 5km	13	20.3
<b>Total</b>	<b>64</b>	<b>100.0</b>
<b>Source of prawn Seeds</b>		
Institution's industries	26	40.6
Commercial seed producers	16	25.6
Own hatchery	9	14.1
Other farmer own farms	6	9.4
Wild	7	10.9
<b>Total</b>	<b>64</b>	<b>100</b>
<b>Distance to hatcheries</b>		
Less than 5km	5	7.8
Between 5–12km	13	20.3
More than 12km	46	71.9
<b>Total</b>	<b>64</b>	<b>100.0</b>

Table 9  
*Overall level of influence*

Factors	Frequency	Percentage (%)
Water	22	(35%)
Soil	10	(15%)
Infrastructure	32	(50%)
<b>Total</b>	<b>64</b>	<b>100%</b>

### Prawn Farming Suitability

From Table 10, the respondents indicated that sources of water (2.61 mean), water temperature (2.20 mean), water pH (1.55 mean), water pollution (2.14 mean), land use

Table 10  
*The mean land factors affecting the land suitability of prawn farming*

Land Factors Affecting prawn farming suitability	N	Mean	Standard Deviation
Sources of water	64	2.61	.633
Water temperature	64	2.20	.647
Water pH	64	1.55	.711
Water Pollution	64	2.14	.732
Land use	64	2.59	.555
Slope	64	2.80	.406
Elevation	64	2.81	.393
Soil Texture	64	2.34	.761
Dist. to roads	64	2.42	.730
Dist. to market	64	2.25	.777
Dist. to electricity	64	2.53	.616
Dist. to fry	64	2.80	.406

(2.14 mean), slope (2.80 mean), elevation (2.81 mean), and soil texture (2.34 mean) had effects on the suitability of land for prawn farming. The infrastructural facilities, including distance to road (2.42 mean), distance to market (2.25 mean), distance to electricity (2.53 mean), and distance to hatcheries (2.80 mean), which were the socio-economic characteristics, were indicated by farmers to have a major influence on prawn farming, because if the water and soil conditions were not good, prawn farming could not yield any reasonable results.

From the interviews, the respondents indicated that accessibility and lack of quality fries (post larvae), water acidity and pollution, and lack of capital had been a major problem attributing in the declining prawn production. To improve prawn production, the pond's water has to be drained to apply lime on the ponds. Farmers also need training on prawn ponds management and a credit facility to facilitate production.

### The Correlation Analysis

Factors were correlated by applying the Pearson correlation analysis at a significance level of 0.05 to determine the relationship (Table 11). The results show that there is a significant positive relationship between water quality and the suitability of prawn farming, with correlation  $r(62) = 0.669$ ,  $p=0.000$  values. This confirms what New (2002) observed in his study, that quality and adequate water supply to fill the ponds is suitable for prawn farming and survival. The water quality component may include the accessibility of water free from pollution and low acidity level with maximum temperature (Hossain & Das, 2010; Rekha et al., 2015). The soil quality factor had a positive correlation with prawn farming suitability with  $r(62) = 0.559$ ,  $p = 0.000$  values, which agreed with Hadipour, Vafaie, and Hadipour (2015), that the soil had enormous potential for prawn farming; the slope, the elevation, and the texture determine the ability of the land to hold water

Table 11  
Pearson correlation variables

Prawn farming suitability N=64			
Water quality	Pearson correlation	0.669**	
	Sig. (2 tailed)		0.000
Soil quality	Pearson correlation	0.559**	
	Sig. (2 tailed)		0.000
Infrastructure facility	Pearson correlation	0.566**	
	Sig. (2 tailed)		0.000

\*\*Correlation is significant at the 0.01 level (2-tailed)

and supply nutrients to the pond. Also, it agrees with Faruque et al. (2017) and Haque et al. (2016) that soil quality will determine where and whether to farm prawn. The infrastructure factor has the highest positive relationship of  $r(62) = 0.566$  with  $p = 0.000$  values, with prawn farming suitability. This agrees with the study by Santos, Aubin, Corson, Valenti, and Camargo (2015), that infrastructure plays a vital role in prawn farming, that an inadequate infrastructure facility resulted in failure in many extensive prawn farming. Ahmed and Flaherty (2013) agreed with this stand, that infrastructure played some key role, but water and the soil factors determined the farming of prawn in a region. All factors have an important relationship ( $p < 0.05$ ) with prawn farming. The inferential statistics are applied to reach a reasonable conclusion and infer from the data the opinion of the population and what

they think of the probability that the land factors affecting the suitability of prawn farming are reliable.

### Regression Analysis

Multiple regression analysis was carried out to measure the influence of the independent variables (water quality, soil characteristics, and infrastructure facilities factors) on the dependent variable (prawn farming suitability). The coefficient of determination  $R^2 = 0.951$ , meaning that 95.1% of suitability is affected by the independent variables, and that there are other factors not included in the model that affect prawn farming suitability (Table 12).

To determine the regression model, the coefficients of the independent variables indicated that water quality (0.563), soil characteristics (0.528), and infrastructure facilities (0.533) were the constant (0.499)

Table 12  
Regression analysis

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
	0.975 <sup>a</sup>	0.951	.948	.573

a. Predictors: (Constant), Infrastructure Facilities, Soil Characteristics, Water Qualities

Table 13  
*Coefficients<sup>a</sup>*

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.499	0.924		0.540	
Water qualities	0.990	0.051	0.563	19.558	.000
Soil characteristics	1.019	0.055	0.528	18.467	.000
Infrastructure facilities	1.153	0.062	0.533	18.526	.000

a. Dependent Variable: Prawn Production

(Table 13). The regression model is represented as:  $Y = 0.499 + 0.563x_1 + 0.528x_2 + 0.533x_3 + \epsilon$

From the study, giant freshwater farming was greatly affected by the water quality, soil characteristics, socio-economic, and infrastructure factors. Water and soil qualities proved to affect the prawn production; the water quality and quantity must be reasonable enough to farm prawn in the pond. Water pH of 7.5 ppt to 8.5ppt was established to be the most suitable for prawn farming. The soil texture and the land slope determined the prawn production from the study area. Soil with good clay content was adequate to hold water; land with a gentle or flat surface was confirmed by all farmers to be suitable for prawn pond constructions. On the infrastructure factors, distance to a source of fries plays a significant role; where hatcheries are located far from the farm, mortality of the fries increases dramatically. Distance to roads and markets were other factors, as lack of accessibility means lower yield and less profit. Farms located near roads and markets have a great prospect for higher production because demand and transportation of farm

products and other inputs to and from the market is faster. Electricity supply as a factor has a major influence on prawn farming. Efficient electricity is needed to power the farm machines.

## CONCLUSION

Descriptive statistics, the Pearson correlation analysis, and the multiple regression analysis were applied to estimate the factors affecting the land suitability for prawn farming in Negeri Sembilan, via the farmers' local knowledge. The prawn production data and other valuable information in the survey are analysed.

The correlation analysis indicated that there are positive relationships between all independent variables of water quality factors, soil quality factors, and infrastructural facilities factors on the dependent variable of prawn farming considered in the study area. This finding is consistent with the fact that the water quality, soil characteristics, and infrastructural facilities have impacts on prawn farming (Hossain & Das, 2010; New & Nair, 2012). It was indicated from the study that infrastructural facilities, which were

also a socio-economic feature, ranked first before water and soil characteristics when considering their influence on prawn farming.

In this study, 64 prawn farmers and 10 key informants were used to examine the influence of the various land factors that affect prawn farming in Negeri Sembilan of Peninsular Malaysia. This study recommends among other methods that can be explored further is the addition of multi-criteria evaluation techniques to this analysis of land factors for determining suitable site for prawn farming through the local knowledge system in the study area.

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## **Creating Clarity in International Commercial Contracts for Guaranteeing Legal Certainty in Indonesia**

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### **ABSTRACT**

The enforcement of the obligation to use the Indonesian language in international commercial contracts, which is a mandate from Act No. 24 of 2009 regarding the National Flag, Language, Coat of Arms, and Anthem, has become an issue and been brought to court. The Supreme Court finally decided in 2015 that an English language international commercial contract is void. The decision has provided clarity on the controversy after seven years of enforcing this obligation due to the lack of implementing a regulation that could further explain the phrase “must” in the provision of Article 31 of said law, which led to multiple interpretations among stakeholders. Although precedent is not recognized in Indonesia, this issue still brings uneasiness among investors, especially foreign ones. In facing this issue, this article discusses what steps must be taken by investors to avoid a lawsuit demanding the annulment of their foreign language contracts. Government Regulation 57/2014 (2014), as an ancillary of Act 24/2009, is silent on the use of the Indonesian language in international commercial contracts. This article therefore argues that a presidential decree to implement the regulation as mandated by Article 31 of Act 24 of 2009 should be enacted immediately to provide legal certainty to foreign investors who may have contracts with Indonesian private parties.

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## INTRODUCTION

A recent Indonesian Supreme Court ruling (Court Decision No. 601 K/PDT/2015) has upheld its lower courts' decisions regarding the mandatory use of the Indonesian language in an international loan contract concluded in Indonesia between PT Bangun Karya Pratama Lestari (BKPL) and NINE AM Ltd. The West Jakarta District Court, as the first court for this case, declared in June 2013 that an English-language Loan Agreement contract was null and void (Court Decision No. 451/Pdt.G/2012/PNJktBar). The Court ruled that the contract must be written in Indonesian, as it involved Indonesian parties. According to Art. 31. para. 1 of Act No. 24 of 2009 on National Flag, Language, Coat of Arms, and Anthem, (the Indonesian Gazette No. 109) (Act 24/2009), the Indonesian language must be used in any MOU or international contracts involving Indonesian state agencies or government institutions, Indonesian private entities, or individuals of Indonesian nationality. The government enacted Act 24/2009 on 9 July 2009 as an implementing regulation for Article 36C, the Second Amendment Indonesian Constitution 1945, which states that provisions on the national flag, language, coat of arms and anthem shall be regulated in a law.

The District Court judged that the contract in question did not fulfil one of the four conditions for lawful contracts as prescribed by Article 1320 of the Indonesian Civil Code (hereinafter ICC), in particular the requirement that an agreement must be entered into for a lawful cause, i.e., not

in violation of any laws or regulations. Therefore, the contract was deemed null and void and the Court ordered BKPL to pay back the loan, as if the agreement had never bound the parties. This decision was then upheld by the Jakarta High Court on May 7, 2014 (Appellate Decision No. 48/Pdt/2014/PT.DKI), which simply concurred with the court of first instance and failed to discuss the substantive legal issues involved.

Concerning the Supreme Court ruling, one should keep in mind that as a civil law jurisdiction, the Indonesian judicial system does not recognize the principle of *stare decisis*, a common law concept of binding judicial precedent. Therefore, the Indonesian courts are not bound by the Supreme Court decision and are free to adopt a different position, although the decision may have persuasive impact in terms of a uniform application of the law as highlighted by Butt (2008), that cassation's main function is to ensure a uniform application of the law, which only considers the legal aspect of the case. Previously, there was no case similar with the case discussed in this article. Nevertheless, in Indonesia as a civil law system country that derived from French and Germany models, courts are not bound by decisions of courts at the same level or higher - called precedent common law system (University of Melbourne, 2018). Thus, in this context, the Courts have a significant point in giving clarity and transparency that the sole English contracts are void if involving Indonesian parties.

According to the courts, the use of the Indonesian language in international

contracts is mandatory, as reflected in the word “must” in Article 31 of Act 24/2009. The article also stipulates that any MOU or agreement involving foreign parties may be written in the national language of the foreign party and/or English. Indonesian need not be selected as the governing language, but an Indonesian text is required if the agreement involves an Indonesian party. Although precedent is not recognized in Indonesia, this issue still brings uneasiness among investors, especially foreign ones. This article analyses the case thoroughly in order to clarify issues concerning international commercial contracts written exclusively in English.

## **METHOD**

This article utilizes the primary sources of law: the decisions of the courts, Act 24/2009, and other legal instruments as the basis for legal analyses of the legal certainty of international commercial contracts in Indonesia. It also utilizes secondary sources, such as articles on law, books and other reading materials on law to support its arguments. This article employs a regular, empirical approach to legal research and uses case, statute, and conceptual approaches.

## **RESULTS AND DISCUSSIONS**

The Indonesian courts have ruled that the use of the Indonesian language in international commercial contracts is mandatory when Indonesian nationality is involved. Despite its controversies, and seven years after the enforcement of this

obligation, the rulings have provided clarity, given the lack of a regulation that could further explain the phrase “must” in Article 31 of Act 24/2009. Although the government issued an ancillary/implementing regulation (Government Regulation 57/2014) on July 2014, this regulation only focuses on the promotion and protection of Indonesian language and literature and is silent on the question of contractual language. Thus, contracts involving Indonesian parties must be executed in Indonesian, although versions in other languages are permitted.

### **The International Commercial Contract as the Key Issue**

The contract in the case under discussion is written in English, notwithstanding the parties’ choice of Indonesian law as the governing law of this loan contract. A deed of fiduciary security executed in the Indonesian language was concluded to secure the loan. Thus, the contract terms are certainly legally binding to the parties, terms dealing with issues within the contract, including the obligations and duties of both parties as well as the language of the contract. In this context, Kessler (1943) maintained that there was no contract without assent, but once the objective manifestations of assent were present, their author was bound.

Initially, the contract was working well, until December 2011, when BKPL began to discontinue repayment, even though it had paid a large portion of the loan, which totalled US \$4.422.00. NINE AM then brought this case before the court, seeking payment of the overdue principal and interest, after its demand letter (*somasi*)

failed. BKPL responded to this claim by asserting that the contract itself did not conform to the requirements of Act 24/2009 because it was written only in English. The District Court ruled that the contract in question is contradicted by Article 1320 ICC, which stipulates that a lawful contract should fulfill four requirements, namely, free consent of the parties, legal capacity of the parties, a defined object and the presence of a legal cause. The contract did not fulfil the last requirement and thus became null and void (vide Art. 1335 jo. 1337 ICC). The Court disregarded a letter by the Minister of Law and Human Rights (MOLHR) concerning the implications and implementation of Act 24/2009 because it was not on the list of the order of laws and regulations stipulated by Article 7 of Act 12/2011 on the Formation of Law and Regulations (Indonesian Gazette No. 5234).

### **The Nature of A Commercial Contract**

Young (2010) maintained that a contract was an agreement (usually made between two or more parties) giving rise to obligations on the part of both persons which were enforced or recognized by law. While Fisher and Greenwood (2011) defined a contract as a “legally enforceable agreement”, Gibson (2005) specified that a contract was an agreement (or a set of promises) between two or more parties under which legal rights and obligations were created and enforceable. The element of agreement is of crucial importance because it distinguishes contracts from other forms of obligation,

notably tortious ones (Gibson, 2005). According to *Smith v. Hughes* (1871), if, whatever a man’s real intention may be, he so conducts himself that a reasonable man would believe that he was assenting to the terms proposed by the other party, and that other party upon that belief enters into the contract with him, the man thus conducting himself would be equally bound as if he had intended to agree to the other party’s terms.

A test needed for whether an agreement has been reached is an objective one. Hough and Kuhnel-Fitchen (2014) further argued that the subjective intentions of the parties were not relevant. According to Fisher and Greenwood (2011), the elements of agreement must be qualified. Ideally, the agreement shall involve intense haggling, give and take between parties, and ultimate consensus (Young, 2010). In this context, it is essential to distinguish the notions of agreement from the contract. Arjunan and Baksh (2008) maintained that although “agreement is an integral part of a contract, it is not, by itself, sufficient and would fall short of a contract.” To be a contract, an agreement must satisfy other elements. For example, s.10 (1) of the *Malaysian Contract Act 1950*, states that “all agreements are contracts if they are made by the free consent of the parties competent to contract, for a lawful consideration and with a lawful object, and are not hereby expressly declared to be void.”

Generally, a businessman entering into a contract or an international commercial transaction is interested in drafting a private

agreement that will satisfy both parties and will be performed as drafted. The parties sign the contract because they wish to transact business, and they will agree to the contract in good faith. Good faith “emphasizes faithfulness to an agreed common purpose and consistency with the justified expectations of the other party...” (Garner, Garner, Jackson, McDaniel, & Newman, 2009).

Connor, as cited in Mitchell (2008), stated that good faith was a basic principle of civil law, canon law and international law, which, was rooted in Roman law (*bonafides*), which is associated with trustworthiness, conscientiousness, and honourable conduct, and which is its most direct ancestor. It describes a significant general principle of law that refers to private contracts, one that underlies the entire system of contract-based relations between private parties. In the Indonesian context, Article 1338 para. 3 ICC states that a contract must be performed in good faith. This is related to the general principle of correct behaviour in commercial practice. The essence of good faith is honesty, which is a subjective state of mind, but the principle can also incorporate notions of fairness and reasonableness, both of which concern an objective state of affairs.

The good faith principle related to the *pacta sunt servanda* principle states that the parties are bound by the contract that they have signed. According to one definition, this Latin phrase translates roughly as “agreements must be observed” (Garner et

al., 2009). In essence, this principle stresses that the contract, more precisely its clauses, are law between the parties, and implies that nonfulfillment of respective obligations constitutes a breach of contract.

Theoretically, the validity of an international commercial contract is based on the principle of freedom of contract, which is of paramount importance in the context of international trade. The binding character of the contract obviously presupposes that an agreement has actually been concluded by the parties and that the agreement reached is not affected by any grounds for invalidity. In drafting a contract, one must be sensitive to the difference between an international contract and contracts that are to be enacted domestically. It is a mistake to assume that there are no differences between the two. In contrast to purely domestic transactions, the language differences between the parties to international contracts often demand that the parties agree to a single, official language for the contract, even if the document is translated into other languages for the convenience of the parties. Indeed, a contract is a purely private commercial agreement between parties. The parties can negotiate almost everything and include what they wish into a contract, including a requirement about the contract’s official language. In bilingual contracts, the parties thereto may consent on the governing language of the contract, thereby exercising their freedom of contract, and simultaneously established clarity in the contract as well because the governing language shall prevail and take

precedence over the other language version. In the case concerned, a bilingual contract would also avoid the contract contradicting with Act 24/2009 because it would not have been written exclusively in English.

### **Legal Uncertainty of the Implementation of Act 24/2009**

International contracts have become an indispensable means of exchanging goods and services in today's international trading system. Transnational economic transactions between individuals include both business and legal risks. International trade requires not only a trusting business relationship between parties but also legal certainty about the application of international contracts to certain countries. On the latter topic, Neuhaus (1963) expressed the view that the promotion of legal certainty, with a view to eliminating the legal risks of business and other transactions by making them clearly predictable, was considered more important than the struggle for justice and equity, which were generally not considered endangered.

The provisions of Act 24/2009 in essence confirmed that the Indonesian language functions as an official language for transactions and commercial documents. The District Court had confirmed and judged pretty much similar with the Act 24/2009 provisions, or in other words, the Courts have decided the case normatively as is stated in the Act 24/2009. The justification for the use of the Indonesian language is that it underscores Indonesian unity and the nation's identity and existence, as it has become a symbol of the sovereignty

and dignity of Indonesia as mandated by the Constitution. The Act further states that if agreements and contracts are executed in multiple languages, i.e., the Indonesian language, the national language of the foreign party and/or the English language, each version is equally original. No sanctions exist for violations to the obligation to use the Indonesian language. The government has issued Government Regulation 57/2014 as ancillary to Act 24/2009. Unfortunately, as this Regulation does not contain provisions on contractual languages, the problems surrounding international commercial contracts where Indonesian parties are involved remain unresolved and may create legal uncertainty.

One should bear in mind that it has long been the way for the Indonesian government to encourage investor-friendly law-making to promote foreign investment. Indeed, the government has taken significant steps to improve Indonesia's business environment, such as reducing corporation taxes, simplifying its licensing processes, and amending laws to give foreign companies greater protection. It is probable that Act 24/2009 has created legal uncertainty, especially in the international business community. Consequently, Indonesia may continue to feature prominently in future complexities, as in 2015 it was ranked as the second most complex place for business compliance in the world (Mondaq, 2016). Thus, it is a matter of some urgency for Indonesia to promote legal certainty by eliminating the legal risks surrounding business by making them clearly predictable.

**Language As A Cultural Element in An International Contract**

Common problems in the process of contract drafting for international contracts are related to the cultural and linguistic aspects of the states or parties. The role of the contract can be viewed differently in different cultures. The parties should be very cautious of the pitfalls and dangers of negotiating and drafting contracts involving cultural and linguistic matters. Language differences can cause serious problems of interpretation (Fox, 1992). DeLaume, in his book *Transnational Contracts*, identified some French words which were similar to English but had different meanings in English (as cited in Fox, 1992), as shown in Table 1.

Table 1  
*Words and different meanings*

English	French
Compromise	Transaction
Agreement to arbitrate	Compromise
Execution	Signature
Performance	Execution

Source: Fox, 1992

The examples above show that problems may arise even in cultural systems where languages are somewhat similar and have common roots. This translation problem would also be far more serious for the countries with vast differences in culture, legal systems and language. Thus Fox (1992) maintained that for a contract between two parties who spoke different languages, it was generally conceded that an international commercial contract should

have an official language as well as be translated into the languages of the various contracting parties.

In a dual-language contract, the parties should decide which of the two languages will predominate. If neither party states which one predominates, in practice the foreign language version will normally prevail in a local court, which will apply local law if different interpretation criteria or discrepancies arise. Thus, both parties should always be aware of what the foreign language contract says. To prevent conflict between the two languages, it is essential to consider which will have priority; hence the agreement must be extremely clear. For dual language contracts, an IACCM research paper (Cilotta, 2014, para. 25) proposed that the parties should state that the original version is in a certain language (e.g., English) and that if a conflict or discrepancy occurs between the languages, one language shall prevail and take precedence over the other. Cilotta (2014) suggested the following example of a clause in a contract:

This agreement is in both languages, English and Spanish. In the event of any inconsistency, the English version is the original language and the Spanish version is a translation for information purposes only. In case of conflict, the English version will prevail and will therefore be the binding version for both parties (para. 27).

The requirement of the Indonesian language in international commercial contracts from an international law perspective

The BPKL challenged the validity of the contract based on its language. It should be noted that freedom of contract is a solemn principle in drawing up international commercial contracts and includes freedom to choose language. However, the Court was of the opinion that the absence of the Indonesian version of the contract violated Article 31 of Act 24/2009, which resulted in the contract having an illegal cause; thus, the contract was deemed null and void, as it contravenes Article 1335 of ICC, which states that an agreement which has been made for a false or forbidden reason shall have no effect. Those who entered into agreements involving Indonesian parties after 9 July 2009 should take the Court's decision into account. This potentially affects not only Indonesian law-governed contracts but also all contracts regardless of the governing law of the contract. This may lead some to consider Indonesia not an investor-friendly region for foreign lenders and financiers, especially given the difficulties involved in translating contractual terms, let alone into the Indonesian language.

The contractual parties should take firm precautions, at least three steps, to prevent any possibility of a void contract. First, the contract should be drafted as a dual-language agreement in both English and Indonesian, regardless of the governing law. Second, the parties should have an agreed-upon clause in the contract stating that an Indonesian translation will form an integral part of that contract. Third, the parties should be careful with their wishes that place the contract to contradict with the law. In essence, the

parties to the contract make the law for themselves; so long as they do not infringe on some legal prohibition, they can make whatever rules they wish with respect to the subject matter of their agreement, and the law will uphold their decisions (Young, 2010). The role of the courts is to identify and enforce the contractual will of the parties and to intervene as little as possible with respect to bargains freely made by competent adults.

This concerning issue requires an adequate response from the government, as Indonesia is moving towards a liberalized trade arena and has agreed to some commitments within Association of Southeast Asian Nations (ASEAN) by establishing the ASEAN Community 2015 (AC 2015) that comprises of the ASEAN Political Security Community (APSC), the ASEAN Economic Community (AEC) and the ASEAN Socio-Cultural Community (ASCC). In this context, ASEAN aims to establish a region as a single-market and production base, providing economic cross-border liberalization via a free flow of goods, services, foreign direct investment (FDI), skilled labour and freer flow of capital. Pelkmans (2016) observed that

The very purpose of the ASEAN Economic Community (AEC) is to attract more foreign direct investment (FDI), to increase local value-added in global value chains, and to generate additional prosperity by moving up the ladder of dynamic comparative advantage and quality in a fiercely competitive setting in East Asia and beyond (p. 12).

ASEAN Blueprint 2025 provides broad direction through strategic measures for ASEAN from 2016 to 2025. It aims to have an ASEAN by 2025 that is “highly integrated and cohesive; competitive, innovative and dynamic; ... people-oriented, people-centred community, integrated with the global economy”. The establishment of the AC 2015 aims to create a competitive, people-oriented arena which will be integrated with the global economy by 2025. Beyond 2015, as the effect of the implementation of the AEC in the Member States regions, as one community, for the next ten years, more businesses and individuals are expected to participate in, and benefit from ASEAN regional economic integration.

FDI will also divert to the ASEAN competitive integrated market as it offers good reasons for home-grown businesses to expand their market reach. Since ASEAN is a well-positioned region at the centre of the global production network, ASEAN has diverse strength and potential to integrate into the global chain. ASEAN remains a major destination of global FDI receiving around 16 percent of the world FDI among developing economics with total FDI flow of US\$120 billion in 2015 (ASEAN and UNCTAD, 2016). In this context, Indonesia has to take these opportunities to be active in investing and expanding in other Member States’ various industries, and vice versa. In other words, as a competitive region, Indonesia should prepare its entire legal infrastructure, including its regulations, to be a business-friendly environment in this globalized trade liberation era. It is urgent

for Indonesia to be prepared, as Mugijayani and Kartika (2012) have noted, because the major players of the AEC will be large companies, foreign companies, and foreign affiliates whose activities are related to export-import, or local companies involved in international production networks. International transactions will observe distinctive increase in growth compared to previous years as the number of international contracts rise as the result of the continuously expanding Indonesian market as a part of the AEC integrated market.

Furthermore, the AEC Blueprint 2025 aims to “foster robust productivity growth ... designed for commercial application to increase ASEAN’s competitive edge in moving the region up the global value chains (GVCs) into higher technology and knowledge-intensive manufacturing and services industries” (ASEAN, 2015). Thus, participation from international commercial parties is a significant factor for ASEAN economic growth. The government should make efforts to attract foreign investors to transact business in Indonesia. According to the annual report of the Global Benchmark Complexity Index by the TMF Group, which ranks 95 countries based on regulatory and compliance regimes, Indonesia was ranked the second most complex place for multinationals to remain compliant with corporate regulations and legislation during 2015. Furthermore, Indonesia has been included in the Index’s top 10 most complex countries for three years running, and has moved up from seventh to second place.

## CONCLUSIONS

The NINE AM case is the first to concern Indonesian as the mandatory language of international commercial contracts in Indonesia. The Court's decision was final and binding following the Supreme Court decision. The English-only version of the international commercial contract is null and void because it contravenes Article 31 of Act 24/2009. This has provoked controversial debate in Indonesia, especially within the international commercial community. The Court's decision is not timely, as the Indonesian government is currently in the middle of economic agreement commitments with ASEAN, which needs an investor-friendly economy for the domestic market.

In ensuring legal certainty and preventing undesirable dispute it offers a viable solution for foreign investors engaging with local parties to establish their businesses in Indonesia, in which every contract with Indonesian entities or individuals is in both Indonesian and English or another foreign language. In this respect, the foreign language version would be deemed the predominant version and would prevail in case of contradictions. Furthermore, the Indonesian version ensures that the Indonesian party understands the contract and also fulfils the requirements of Article 31 of Act 24/2009. The contracting parties should follow this fairly practical solution because Government Regulation 57/2014 provides no details on fulfilling the obligation to use Indonesian in a contract with Indonesian parties. Another

implementing regulation focusing on dual-language contracts should be issued, as this would reassure existing investors and prevent further confusion in the future, as well as safeguard investors' trust that the business and cooperation they will establish in Indonesia will not be ruined by mere formalities.

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## Re-conceptualizing Environmental Ethics in the Anthropocene

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### ABSTRACT

This essay critically analyzes two partakers of environmental ethics: environment and human, to understand how these are conceptualized in the discipline. I argue this critical evaluation is particularly necessary to comprehend why after more than four decades since environmental ethics has emerged, we arrive at the zenith of the Anthropocene. I see this analysis would precisely demarcate the ground, environmental ethics needs to cover to become appropriate for the era of the Anthropocene. This essay affirms that it is high time to delve into the relationship between human and the environment to understand the relational conceptualization of environment for adopting a hybridized notion to meet the needs of the hour. This concludes that adopting phenomenology as a theoretical perspective as well as a methodological tool could enable environmental ethics to uphold a relational conceptualization of environment—appropriate for the Anthropocene.

*Keywords:* Anthropocene, environmental ethics, human—environment relationship, phenomenology

### INTRODUCTION

It has been almost half a century, since environmental movements have emerged and went through various phases in different parts of the world. Since then, environmental concerns gained prominence in the society as a whole, and these concerns have even become an integral part of the developmental discourse. As an upshot of the fact that these concerns are predominantly anthropocentric, it is more than 4 decades since environmental ethics as a discipline has emerged to guide human society to ethically addressing the issues relating to the environment and for extending

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the purview of moral consideration to other living and non-living beings. Even though, environmental ethics is a well-developed discipline to guide the human—environment relationship for overcoming multifaceted environmental problems, we enter the era of the Anthropocene—an era when anthropogenic impacts are equated to being one of the prime geological forces. At the same time, we see environmental problems are mounting day-by-day and the threat of climate change is looming large on every nook and corner of the global society. In this context, I posit, it is the high time when the underlying assumptions and presuppositions beneath the discipline of environmental ethics gets critically analyzed to possibly shed light on whether this discipline is equipped enough to face the Anthropocene.

In this essay, I primarily attempt to see how environmental ethics conceptualizes its two partakers: environment and human. I see this analysis would precisely demarcate the ground environmental ethics needs to cover to become appropriate for the era of the Anthropocene, where the urgency to work on environmental issue does not remain limited to moral debates, rather it becomes the question of the very survival of life on Earth, including ourselves.

### **Notion of Environment in Environmental Ethics**

The genesis of environmental ethics points towards the historical shifts in our conception of 'nature'. Modifications in the epistemological as well as in the ontological

understanding of nature, particularly have induced these shifts. 'Nature' as a concept possesses multiple layers of understanding as Soper (1995) and Baidur (2015) teased out. Soper (1995) precisely pointed out that there were three kinds of conception of nature. The first one is based on a metaphysical grounding through which we divided human and nonhuman in the first place. The realist conception which in a way rest on the scientific understanding of nature is the second one. The third one is the lay and surface conception where nature is just an ordinary observable feature. The concept of nature has gone through various stages starting from its romantic notion, to the cosmological understanding of nature, and now to the post-enlightenment articulation of it. Frank (1997) denoted that nature as a concept was being reformulated in the course of the last hundred years. By analyzing the trend in various international treaties, Frank substantiated that the shift in the conception of nature from a storehouse of resources to the universal life sustaining 'environment', actually provided the necessary awareness and subsequently, invoked moral obligation to care for it. This shift in the conception of nature in the form of environment can be considered as being the primary foundation of the discipline of environmental ethics. Without this shift from nature to environment, it would be next to impossible to engage in any sort of ethical discussion concerning 'nature'. To capture this same difficulty, Vogel (2002) stated 'there is nothing ethical

in nature', rather, 'nature is always already ethically interpreted' (ibid., 34). At the outset, I would like to clarify that though the notion of environment can be seen as a post-enlightenment articulation of nature stemming out of the scientific worldview, I see however, the concept of environment is broadened over time to uphold multiple conceptualizations. In the rest of this essay, I will use the term nature and environment somewhat synonymously to capture different contours of this discourse.

In the following, from the existing literature my attempt will be to comprehend how traditional schools of environmental ethics conceptualize the environment. Here, I will also discuss an entirely different way of comprehending the environment advocated by the social constructivist school.

### **Conception of Environment in the Environmental Ethics**

Over time, transformations in the conceptualization of nature as the environment clearly indicates the influence of scientific epistemology on environmental ethics as it predominantly borrows the conception of environment from ecological science. Ecology as a discipline studies the relationship between living things and environment and conceptualizes environment as an integrated whole (Marshall, 1992). The scientific paradigm of ecology emerges along with the advent of Darwin's theory of evolution. Darwin's descriptive project of natural history offers completely a new way of understanding

nature and other life forms. Rozzi (1999) pointed out that the 'tree of life' and 'the web of life' were the two very different ways of portraying the natural history. Baindur (2015) underlined the implication of this natural history on environmental ethics. Through the image of a tree, Darwin offers an ethical justification to reconstruct humans' relationship to other life forms and emphasizes the necessity of biodiversity conservation. Furthermore, Darwin's web of life can be considered as the first attempt of this kind to comprehend the holistic ecological system. Thus, Darwin's project demonstrates the important link between the theory of evolution and ecological science and consequently, with environmental ethics. Pioneer environmental ethicists like Aldo Leopold, Ian McHarg and Rachel Carson justified their arguments and claims on the basis of this conception of environment where interconnections among organisms were bestowed with the utmost priority. While Carson (1962) highlighted how human mastery was the cause behind the increasing rate of extinction of other life forms, which in turn, was severely hampering the web of life, McHarg (1969) explored an intrinsic value system in the direction of biological evolution. In the same vein, Leopold (1949) concept of the land pyramid encompasses all natural entities for moral consideration. Eventually, the concepts of web of life and the tree of life provide the necessary ground for extending the moral consideration. These ethical standpoints no doubt are based on an ecological understanding. Marietta (1979)

termed this kind of ethics as ecological ethics and defined it as follows:

The basic concept behind an ecological ethic is that morally acceptable treatment of the environment is that which does not upset the integrity of the ecosystem... The integrity of the ecosystem is held to be a dynamic homeostasis which can be comprehended through ecological science (ibid., 197).

This ecological understanding of nature, as being the life-supporting system, alters the human beings' relation with environment from 'human-and-nature' to 'human-in-nature'. In this manner, it offers a way to build ethical principles based on our interdependency on nature.

The most important concept that environmental ethics borrows from ecological science is of 'ecosystem'. Ecosystem is taken as the primary unit for moral consideration, and also seen as vested with intrinsic value in various schools of environmental ethics. Anthropocentric ethics guided by the idea of ecosystem promotes environmental management to maintain the balance of the ecosystem. Moreover, I observe, Leopold's Land ethic, Carson's descriptive narrative of environmental change, or Arne Ness's Deep ecology, all are normatively based on the conception of ecosystem puts forth by ecology. The debate in environmental ethics on holism vs. organism becomes even robust after considering the environment as an ecosystem. The notion of ecosystem opposes the laboratory based understanding of an organism and argues for studying organisms

in their very own niche. In this regard, it is important to note Nelson (2010) argument that there is a divergence in understanding holism in the discipline of environmental ethics and often holism is being naively conceptualized against reductionism. Ecology as a holistic science is influenced by the philosophy of holism, and in turn, provides a substantial justification to foster holism. The upshot of this influence gets reflected in the most celebrated concepts like biotic community or ecological self.

On one hand, the scientific conception of nature dominates the discipline of environmental ethics, particularly the school of anthropocentric ethics and the early developments in the ecocentric ethics. On the other hand, borrowing from Vogel (1998), it would not be wrong to argue that the most recommended school of environmental ethics, ecocentric school, is also heavily influenced by the teleological conceptualization of environment. The concepts of pristine nature and intrinsic value indicate that this school conceptualizes environment as having its own goals and purposes. This teleological conceptualization, I see, is an outcome of the historical understandings of nature. First of all, the presence of this teleological conceptualization can be found in the cosmological perspective of nature, as Aristotle describes it. Baidur (2015) highlighted the connection between Aristotle's concept of *entelechy*, denoting 'being-at-an-end', and the teleological conceptualization. This concept stands for an 'act for an end', and consequently,

Aristotle's conception of nature ascribes a purpose or a definite goal to nature. It conceptualizes nature as a self-moving being continuously moving towards the ultimate end to fulfil certain purposes. Secondly, Darwin's natural history again offers the scientific bedrock to this teleological conceptualization as the tree of life and the evolution of nature advocates for a progressive notion of nature. The tree of life explains all life forms are coming out of a common ancestor and thus the evolutionary process should be unhindered. The evolutionary account of nature "makes it something that could replicate and evolve" (ibid., 35) and can finally attain its ultimate end. Baindur (2015) rightly denoted this kind of understanding of nature as the conception of a 'progressive nature'.

Hence, it can be concluded that the very conceptualization of 'environment' in environmental ethics is a product of historical development of the idea of nature. This discussion indicates that the very positivistic framework of environment what Soper (1995) would say a realistic conception of nature, is pronouncedly present in the discourse. With the emergence of the scientific discourse, there was a sharp turn in the epistemological and ontological understanding of the environment. Environment turns into an object of study, either as the assemblage of organisms or as an ecosystem. Over time, conceptualizing environment as an ecosystem becomes prominent due to the influence of ecological science and evolutionary biology. Environmental ethics

considers environment as a life-supporting system and this understanding becomes the normative ground for the subsequent ethical interventions. This positivistic notion also emphasizes the problem/solution based attitude, and imposes normative values on the scientifically developed notion of the environment as an ecosystem. This discipline still follows the paradigm where the environment is conceptualized either as a form of autonomous system like an ecosystem or like a pristine-wild nature. In this regard, I would like to mention that Arias-Maldonado (2015) argued that in the Anthropocene, we had to shred the conception of nature as a form of pristine otherness to create the space for a postnatural notion of environment to emerge. He further argued that now by ecosystems we actually meant "homogenous and limited suite of cosmopolitan crops, livestock and creatures that got on well in environments dominated by humans" (ibid., 75). This modified notion of ecosystem is entirely based on a socio-cultural selection rather than an assemblage of natural ecosystems. Hence, it can be said that both the predominant concept of environment as a wilderness or as an ecosystem is on the verge of a cliff in the Anthropocene.

### **Social Construction of Nature in the Environmental Ethics**

Although the scientific paradigm is the dominating one in the discourse of environmental ethics, an alternative conception of environment does exist, simultaneously. This alternative conceptualization vouches for a new

understanding of the environment from the perspective of social construction of nature. Peterson (2006) stated that there were two kinds of understanding related to the social construction of nature. The first one holds that there is no scope of understanding nature without interpreting it. Historically, culturally, politically, or socially, nature is being interpreted in many diverse ways; and one cannot comprehend nature without being subscribed to any one of these perspectives. As Peterson highlights, “What is ‘constructed’ in this sense is not natural entities or objects, but rather their meanings in particular contexts” (ibid., 1568). The second view of the social construction of nature holds that not only the meaning of environment, rather, its physical aspects like national parks, city-parks, or rainforests are also culturally shaped by human beings and formulated as being a natural object. On the same line, Demeritt (2001) demarcated the strong literature on ‘denaturalizing’ something which usually got acknowledged as natural. Dermeritt (2001) argued that demarcating things as natural was a politically-driven act, and through ‘denaturalizing’, it was possible to critique some natural thing or phenomenon which was actually socially constructed and potentially a reformed category. This he termed as ‘social construction-as-refutation’. Through this, he even saw the idea like climate change or global warming was “socially constructed and historically contingent idea” (ibid., 35). The denaturalizing actually indicates a process to deconstruct ‘what is natural?’. The literature

on ‘denaturalization’ argues that natural is synonymous to essentially necessary, or biologically determined, or the external material world. The second conception of social construction of nature, as per Demeritt, emerges from the critique of the presumptions regarding knowledge and our existence, generated in the Enlightenment period. This second conception highlights the understanding of various interpretations through which the symbolic construction of nature takes place. It also demonstrates how the dominant one among various interpretations actually shapes the way we perceive the environment, and human beings’ relation to it.

Archer (2012) argued that the recent formulation of the concept of environment and the associated concepts that dominated environmental ethics, were the fruits of a positivistic epistemology. The scientific discourse that has emerged post World War II, brings forth concepts like ecosystem services, and invasive species, which actually promote a socially constructed idea of the environment. The notions of environment and environmental problems from this perspective reveal the futility of the attempts to strike an equilibrium or reaching a balanced state of the environment. This social construction of nature, in its most extreme form also refutes the idea of the environment, and argues that the notion of environment gets created by human society and culture. According to this perspective, without its presence in various discourses, there is no environment out there. However, there is a softer version of this conception,

which mostly highlights the impossibility of knowing the existing outside world and our epistemological limitation to acquire valid knowledge about it. Castree (2001) argued that nature never spoke for itself, rather the ultimate reality of nature was entirely contingent on the perspective of the experts. Precisely for this reason, instead of a singular version of what is nature, there should be multiple accounts of it. Castree's accounts of 'knowing nature', 'engaging nature', and 'remaking nature', elucidate the dominance of 'Western social formation' on the concept of nature. For example, 'knowing nature' as a social construction of nature argues that the concepts like sustainability, limits to growth, or even natural hazards are politically biased and highly value laden concepts. At times, these concepts become so pervasive that it simply gets next to impossible to go beyond these to be able to grasp the reality beneath. As Castree stated "Many nature discourses become so deeply entrenched in both lay and expert ways of thinking that they themselves appear natural" (ibid., 21).

To conclude, it can be said that this critical social constructivist conceptualization of the environment on one hand refutes deeply entrenched naturalistic paradigm in environmental ethics. On the other hand, it promotes an idea of the environment which is socio-politically constructed, as a product of human labor and social practices. By refuting the notion of environment as a pristine one and strongly negating environmental problems on the

ground of being socio-cultural or political ones, impede this conceptualization to acknowledge, as Vogel (2002) contended, the material hardness and the realness of the world. The social construction discourse being concentrated on the construction and the interpretation of the notion of nature, immensely gets influenced by the two very basic forms of dualism, what Latour calls 'paradox of modernity'. Bannon (2014) adopted a hermeneutic project and elaborately points out that the dualistic character of modernity and its influence on the conceptualization of environment. The first dualism, which predominantly influences the construction of the concept of nature and subsequently, I see, have bearings on this discourse as well, is of hyperseparation between nature and society or culture. The second one is between two practices through which this hyperseparation is at all possible—the acts of purification and translation. The process of purification always attempts to bracket one phenomenon either as natural or as social. We can observe, the social constructivist notion is influenced by this process as their sole aim is to establish environment as a socially constructed and politically moulded notion. The act of translation is just the opposite of the process of purification. Through this act, it is possible to create a hybrid network of relation that can actually bring the natural and the social/cultural together. The process of translation promotes that some phenomena cannot be comprehended if only seen through the perspective of one

of these two ontological categories—social and natural. In the era of the Anthropocene, when on one hand, human beings are inducing environmental phenomena and formulating knowledge about these, and on the other, the presence of real environmental issues is posing serious threats to the life-supporting systems and to numerous life forms, creating a hybrid network between the natural and the social/cultural is highly essential to understand any environmental phenomenon in its entirety.

At this juncture, I think for conceptualizing a hybridized notion of environment, first and foremost, it is required to unambiguously incorporate human beings in the very conceptualization of environment. One may contend that the environmental ethics literature considers human beings as a part of the environment. However, in the above discussion, we observe that the conceptualizations of environment as a pristine one, or as wilderness or having its own teleology, limit anthropogenic interferences. To overcome this ambiguity, I affirm, we need to acknowledge that environment is a relational word (Rolston III 1997, 44) and in the Anthropocene, human beings are at the very center of that relation. Hence, it is particularly important to explore how environmental ethics conceptualizes human beings and how far that conceptualization suffices to uphold a relational notion of environment.

### **Human Beings in Environmental Ethics**

In environmental ethics as the

conceptualization of human beings or how human beings function in the context of environment is not critically analyzed yet, I attempt to explore it through the analysis of two most prominent schools of environmental ethics: anthropocentric and ecocentric school. The anthropocentric school primarily emerges with the objective to sustain human needs from the environment. Moreover, the solutions this school recommends are entirely dependent on the scientific projections about changes in the environmental components and resources. Strong naturalistic conception of the environment leads this school to explore how different parts of environment function, and the causal interconnections among various components. With the help of this knowledge, it also attempts to understand the integrity of the components in the entire ecosystem. This knowledge guides this school to conclude that it is imperative to maintain the integrity and the balance of the system to retain the resource flows—highly necessary for sustaining life on Earth. On this line, the entire anthropocentric school can be considered to be based on the evaluation of anthropogenic impacts on various ecological processes and interconnections. Jaminson (2001) put forth that the global agenda of managing environment became stronger with the idea of sustainable development, what this school intended to attain. The emerging discourse of sustainable development moulds the environmental politics or the environmental management practices as well. The main initiatives in this regard, I posit, are

internationalizing environmental agendas and focusing on trade and technology transfer. At the same time, this discourse integrates economy and ecology, and link environmental problems with other social issues like global poverty and unjust resource distribution. Hence, it can be said that although the human need is at the very center of this school, there is hardly any attempt to comprehend how human beings function and relate to their environment. Instead, the environment becomes the principal object to know, evaluate, and to act upon to mitigate environmental problems, for this school. Thus, understanding the way environment functions gain more attention than why human beings are prone to act in environmentally destructive manners.

Moreover, for this school awareness building through information dissemination is considered as the most effective solution for addressing environmental issues. These solutions, I argue, are clearly based on the assumption that human beings by their very nature want to conserve and care for the environment and the main roadblock that is impeding this attitude to foster in reality, is the lack of adequate and appropriate information. Thus, this school of ethics constantly works on gathering more precise forms of information through valuation exercises, and then concentrates on dissemination to change human behavior. If this rather simplistic conception of human beings is precise, then one can expect to witness some evidences of that in the form of declining real world environmental issues. However, we can see at present

the world is witnessing a rapid upsurge in environmental problems, and ironically, anthropogenic changes are now equated to geological forces. Hence, it can be rightly argued, based on this observation that the underlying notion of human beings for anthropocentric school is rather simplistic, and naturally, the solutions proposed on the basis of that are destined to be inadequate and would never be capable of addressing the root cause of environmental problems. These guidelines can only work in the superficial realm to achieve some proximate outcomes like conserving one species, or choosing a renewable form of energy over a non-renewable one or inventing an ecologically appropriate technology, but these would largely fail to attain a sustainable form of human—environment relationship in the long run. In this regard, Jaminson (2001) highlighted if scientific and technological developments wanted to meet the ecological sustainability then it is necessary to adopt broader perspectives. To attain a broader perspective, I see human side of the story is the utmost important one to be incorporated.

The environment is in the locus for the school of ecocentric ethics as well. To extend the ethical consideration towards the environment, guided by ecological knowledge, this school decides the ‘good’ for the environment. However, unlike anthropocentric school, this does not limit itself only to acquiring scientific knowledge. Indeed, it focuses mostly on experiential knowledge that can substantiate scientific knowledge at the level of an individual. It

emphasizes the necessity for bringing an epistemological shift and believes that this shift can have a greater impact on human beings, rather than simply bombarding them with scientific facts and figures. For example, Land ethic vouches for the importance of experiencing the interconnectivity of the environment and highlights the need to create a biotic community on the basis of that. Or even, to attaining ecological self, Naess put forth the importance of experiencing our interconnections with other beings in the midst of nature. This focus on the epistemological shift, I contend, actually indicates the faith in the potential of experiential knowledge about the integrity of the environment, to induce a radical as well as a permanent shift in human consciousness and in the way we relate to the environment. Ecocentric school strongly upholds that a fundamental shift in human beings cannot happen by only imparting some objective knowledge and thus, it focuses on invoking modifications at the level of consciousness. For example, the Deep ecology's solution of fostering ecological self or ecofeminists approach for overcoming the logic of domination, function at the level of consciousness to address the current environmental crisis at its very roots. The assumption behind this epistemological shifts is that the first-hand experience can bring the necessary as well as a sufficient shift to transform an individual's behavior towards an environmentally benign form. As if, after the shift in one's consciousness, the individual would be able to think beyond own self-interest and would extend her

moral consideration to the environment. As indicated for anthropocentric school, this kind of faith on epistemological shift is the result of a rather simplistic understanding, which promotes that human beings always possess the intentions to change their behavior into environmentally benign forms and only unable to do so due the lack of experiential knowledge essential for the realization. Hence, it can be concluded that this entire process is also completely focused on the study of environment, with a simplistic understanding of human beings, to guide the human—environment relationship.

Finally, it can be summarized that both the schools believe in studying the environment to formulate effective ethical guidelines. Environmental ethics in the course of doing 'good' for the environment, on one hand, considers ecologically defined concepts of environment and on the other, acknowledges human limitation to grasp environment in its entirety. On the basis of these two perspectives, there is a constant urge to tease out 'what is good for the environment' by inquiring, knowing, observing, and evaluating its parameters and components. In the course comprehending how the environment functions and resolving associated debates around it, I posit, we have become completely oblivious of human beings. If the primary objective of environmental ethics is to guide the human—environment relationship, I strongly argue, then both these partakers should get equal priority in this discipline. Especially, human beings as the creator as

well as the implementer of environmental ethics, become an important subject to be conceptualized in the first place. Then only we can achieve an equal ground to establish an environmental ethic apposite for the Anthropocene.

### **Environmental Ethics and the Anthropocene**

The obvious question arises at this juncture is how far environmental ethics is ready to face the Anthropocene. The particular notion of environment which dominates the discourse of environmental ethics tends to follow the scientific paradigm and thus, inherently promotes the naturalistic fallacy. On the contrary, the alternative notion of environment could not really surpass the nature/culture dichotomy and also, fails to address the real world environmental issues. Along with, the locus of human beings in the discipline is found completely equivocal and often, its schools tend to uncritically ground their moral deliberations on rather simplistic conceptions of how human beings function in the context of the environment.

At the zenith of the Anthropocene era, the environment we encounter is no longer remain 'natural', and we as humans are no longer just cultural or social. Rather, as Latour (2014) highlighted that to understand the human—environment relationship in the present scenario, we needed a fundamental shift in how we differentiated between subjects and objects. Arias-Maldonado (2015) argued for the necessity to go beyond the usual conceptions of nature/environment to open up a space for a hybridized notion

of bewilderment between human and nature to foster. Here, I posit, in the era of the Anthropocene, environmental problems become twofold. At first, all environmental problems are seen as anthropogenic. This demarcation can easily induce us to follow the social constructivist idea that every environmental problem is in a way linked to a social problem. Secondly, the Anthropocene also breaches the boundary between human and nature. In this way, it urges us to think beyond this dualism of nature/culture, or in other words, it dismisses the possibility of 'purification' of the environmental problems. Instead, it highlights the need to realize that the problems are neither in human nor in nature, rather it lies in the relationship. To explore environmental problems in the milieu of the human—environment relationship, I accentuate, it is particularly important to understand the human side of this relationship as we are the owner of this relationship and also the moral agents of this ethics. Knowing how human beings function, perhaps could reveal more practical avenues to bring some profound and long-lasting shifts in the consciousness of the moral agents and would be the only feasible way of addressing this pressing environmental crisis in the era of the Anthropocene.

### **CONCLUSION**

Considering the contours of environmental ethics and the need of adopting a relational conceptualization of environment, I propose, it is imperative to develop a theoretical perspective and a corresponding

methodological tool. In this context, I would like to invoke Bannon's attempt to extend Latour (2004) idea of 'the collective world' to indicate a relational ontology where human and nonhuman worlds are existing in an assemblage. This relational ontology about nature inspires Bannon to rethink the monolithic concept of nature. He advocates the importance of phenomenology to make sense of the concept of nature in the midst of these dualisms. Instead of rejecting these dualisms, he claims that phenomenology as a method could help us to re-conceptualize environment, all together. On that same vein, I conclude phenomenology not only as a methodological tool, but also as a theoretical perspective could help environmental ethics to evolve and re-conceptualize the fundamental pillars of the human—environment relationship in the Anthropocene. Phenomenology presents a unique opportunity to explore the notion of environment through experiential accounts and could illuminate why it mostly becomes difficult for us to adopt environmentally benign behaviors. In this manner, phenomenology could be one of the apt ways to move towards building a different form of environmental ethic that could be equipped to handle the present days' mounting environmental crisis.

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<sup>1</sup>See Ramachandra Guha, *Environmentalism: A Global History* (New York: Longman, 2000).

<sup>2</sup>See Arias-Maldonado (2015). pp. 21–25.

<sup>3</sup>Biotic Community is Aldo Leopold's concept. It demarks a community which includes not only human beings but also non-human biotic and abiotic components and thus extends the horizon of the community.

<sup>4</sup>Ecological Self is Arne Ness's concept. Ecological self is a kind of self which is capable of explaining individual's self-relation with other non-human beings. This helps one to identify herself with other beings and thus, it widens the self and in the process, the self becomes mature.

<sup>5</sup>See Meera Baidur and Kalpita Bhar Paul (2015). Mapping the observer in the observation in Anthropocene: A Methodological Exploration. *Humanities Circle*, 3(2), 61–81 for more about the relevance of phenomenological methodology in the Anthropocene.



## **The Relationship between Self- Efficacy and Push – Ups Performance among Male Gym Members after 12 Weeks of Joining: A Pilot Study**

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### **ABSTRACT**

The main objective of this study is to examine the relationship between self-efficacy of gym members and muscular endurance performance, measured from a push-up test. Data were collected from 70 male participants aged 18–25 years ( $M = 20.87$ ,  $SD = 2.15$ ). Prior to the push-up task, the participants were asked to rate the push-up self-efficacy scale, and they then performed the push-ups test using a “malan” detector. The participants were asked to do as many push-ups as possible in 1 min. Pearson correlation showed a positive significant relationship in that members who increased in self-efficacy also increased their push-up scores. This study concludes that the self-efficacy scale used for the specific exercise tasks (push-up) is a good instrument to assess a person’s performance in an exercise program. The findings can inform gym trainers on effective means of providing motivational support for non-members of members who seldom visit the gym. Gym trainers can also benefit from the results in dealing with potential new members during free trial. The ability of gym trainers to influence new members in undertaking a comfortable and beneficial regime can increase the likelihood of members’ adhering to the programme.

*Keywords:* Exercise, ‘Malan’ push – ups detector, muscular endurance, self- efficacy

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### **INTRODUCTION**

According to the social cognitive theory, a person with self-efficacy believes that he or she is able to perform any task at hand (Bandura, 1997). This trait is thought to be influenced by four factors: vicarious experience, mastery experience, verbal

persuasion, and somatic and emotional state (Bandura, 1997). The social cognitive theory also suggests that people with self-efficacy will partake in activities that they are good at, and *vice versa*. These people believe they can accomplish a difficult task that they perceive as a challenge to be mastered rather than a threat to be avoided (Hayden, 2014). The mastering of certain skills and the improvement of previous performance will generally elevate their goals and level of self-efficacy (Bandura, 1997). Self-efficacy also helps to increase the stages in skills development process as one masters a skill of higher level (Marcus, Selby, Niaura, & Rossi, 1992). For example, athletes who easily win a game become complacent compared to those who have higher self-efficacy and goals to win a more challenging game (Bandura, 1997).

In a physical exercise, efficacy information is obtained from the physiological state and fitness level of a person (Feltz & Lirgg, 2001). For example, individuals differ by their level of endurance, pain, fitness, strength, fatigue and the feeling of self-doubt and fear toward a given exercise regime. Participants who change their belief on how they can execute an exercise successfully tend to stick to their exercise regime (Annesi, Unruh, & Whitaker, 2007) and eventually improve their mental and physical health. As found by McAuley (1992), body composition and self-efficacy had a negative relationship during the early stage of a 5-month exercise program. In the study, the participants' exercise behaviors were measured in

week 3, week 12, and week 20, and self-efficacy was found to be a strong predictor of exercise adherence after week 12. The consistent continuations up to week 20 were seen in participant's exercise attendance and intensity at week 12. These findings clearly support the self-efficacy theory which denotes the mastery of skills helps to increase the self-efficacy of participants.

Nevertheless, most of the previous studies have focused on athletes' self-efficacy toward physical activities (Feltz, & Lirgg, 2001), and little research has been done to study non-exercisers who just joined a gym (Opperman & Strydom, 2012; Oberg, 2007). In one study, Mihalko and McAuley (1996), found that the feelings of self-efficacy increased after exercise among middle-aged, non-exerciser participants. Another study by Feltz and Lirgg (2001) also involved participants who were committed and experienced in exercises (Feltz & Lirgg, 2001); however, the study sought to identify only the relationship between self-efficacy levels of new gym members and exercise performance that were at twelfth week committing into exercises. The findings of the study nevertheless will be able to change the exercise behavior of new gym members and increase their adherence to a gym regime.

## METHODS

### Sample and Participant Selection

Seventy male participants aged 18–25 years ( $M = 20.87$ ,  $SD = 2.15$ ) participated in the current study. They were 12-weeks (trial pass) gym members who came to the gym

twice per week and were not attached with any physical trainer.

### Assessments and Measures

The guideline of developing self-efficacy scale related to physical activity (Bandura, 1997) was used in this study. The present study followed the norms for a push-up test as recommended in a previous study (Miller, 2002). The participants performed a 1-minute push-up test by using a new tool called the “malan” push-up detector to detect the accuracy of push-up performance, such as the placement of hands and the way of counting the number of complete push-up.

**Push-up self-efficacy scale.** Self-efficacy is a task or a judgment about what a person thinks he or she can do, and not the skills he or she has (Mazlan, 2015; Moritz, Feltz, Fahrback, & Mack, 2000). However, a self-efficacy scale used to measure a particular task cannot be used for another task. For the present study, the participants' self-efficacy in performing a push-up test needed to be assessed yet no scale is available to measure this specific task. Following Bandura's (2006) recommendation, this study then developed a new push-up self-efficacy scale that was task-specific and hierarchically arranged to represent increasing levels of complexity, concordant with the task (Cumming, Nordin, Horton, & Reynolds, 2006; Mazlan, 2015; Moritz, Feltz, Fahrback, & Mack, 2000). The measures started with phrases such as *Rate your confidence that you believe you can get how many time..... in 1-min*

*push-ups task*. The response items include *I believe I can get six times in 1-min*, and *I believe I can get 12 times in 1-min*, to list a few. The participants were then asked to rate the strength of their confidence at 1-min push-ups, using a 100-point scale that includes, among others, a point of 0 (cannot do at all), 50 (moderate can do), and 100 (highly certain can do). The homogeneity of items for this scale was unnecessary because the scale was a hierarchical scale (Feltz, Short, & Sullivan, 2008). However, the internal consistency was compulsory for this scale (Bandura, 2001) and thus Cronbach alpha coefficients were measured, resulting in a self-efficacy scale of 0.92.

**1-Minute push-up test.** Muscular strength and muscular endurance were the important health-related elements for the physical activity. Muscular endurance is defined as individual ability to perform repeatedly with a sub-maximum resistance over the time given. Muscular endurance also avoids undue fatigue from workload and other daily routines, and thus results in greater success and pleasure in physical and leisure activities (Bompa & Buzzichelli, 2010).

A push-up exercise is a great way to build upper body strength and endurance. The push-up test is acceptable fitness test used by trainers, coaches, and athletes to test for upper body strength and endurance (McManis, Baumgartner, & Wuest, 2000).

In this study, the 1-min push-up test or 60-s push-up test is a standardized full-level push-up performed with thumbs at shoulder width. The lifter needed to keep

his or her body straight from head to feet (male). One previous study had used a 90° push-up test to examine the muscular strength and endurance for the upper part of body (Hashim, 2012) and found that compared male students, compared to female students, recorded higher validity values by performing the test. The present study, however, required the participants (male) to lower their body until their chin touched the buzzer (the “malan” push-up detector), which was placed at the floor below the lifter’s chin (see figure 1).

The “malan” push-up detector used in this study was a 90° push-up detector that consists of a support device with four suction cups underneath the platform base, which served to prevent movement of the invention during the test. The user engagement devices included audible and visual signaling (lighting) devices, both of which had user contacting elements. The contacting elements registered when the participant’s chin touched the buzzer.

**Procedure**

For the initial health and medical assessments, the participants were asked to complete Physical Activity Readiness-Questionnaire (PAR-Q) (American College of Sports Medicine [ACSM], 2014). The participants took approximately 10 min to fill up the PAR-Q and self-efficacy scales. Subsequently, they performed the push-up test by using the “malan” push-up detector and were asked to do as many push-ups as possible in 1 min.



Figure 1. Position of the body until the chin touches the buzzer.

**RESULTS AND DISCUSSION**

The relationship between self-efficacy and 1-min push-up performance among the male gym members (12 weeks trial) was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity.

Findings from Table 1 indicate no correlation between the two variables ( $r = 0.40, n = 70, p >0.05$ ). This result thus suggests a positive correlation between self-efficacy and 1-minute push-up performance, with high level of self-efficacy associated with higher level of 1-min push up.

Table 1

*Pearson correlation between self-efficacy and 1-min push-up performance among 12-weeks Male Gym members (n = 70).*

Variables	1	2
Self-efficacy	-	
1-minute push-ups	.01	-

## CONCLUSIONS

The present study showed significant positive associations between self-efficacy and 1-min push-up performance among the 12-weeks male gym members. This finding supports the previous findings that demonstrated that the increase of push-up performance following the increase of a person's levels of self-efficacy (Moritz et al., 2000). Self-efficacy was also found in Kane, Marks, MZaccaro and Blair (1996) to be a stronger predictor to performance and a factor gave a positive impact toward task performance. Kane et al. (1996) specifically found that majority of the participants were ready and could perform beyond their expectation.

The current findings also attest that an exercise program is influenced by the self-efficacy of the participants (Sallis et al., 1989), and that exercise is also a cause of self-efficacy (McAuley, Courneya, & Lettunich, 1991). The findings of this study open a discussion among gym trainers if the members need fully motivational support and encouragement to exercise particularly for those who least come to the gym. Furthermore, this is also beneficial to the gym trainers who may be dealing with a potential new member during free trial. The ability of gym trainers to encourage new members to follow a comfortable and beneficial regime can increase the likelihood of gym members to adhere to a regime.

However, the present study is not without limitations. The significant relationships among the variables as noted from the results were probably influenced

by an uncontrollable factor such as the daily activities of the participants. The self-reported data also cannot be independently verified and are likely to contain potential sources of bias. As supported by previous studies, self-efficacy increased during moderate and after exercise routine (Treasure & Newbery, 1998). The amount of suggested exercises in accordance with the principle of FITT (frequency, intensity, time and type) needs to be given further attention (Oberg, 2007). As a result, the self-efficacy theory can be applied to help individuals cope with negative emotions due to not achieving expected goals or targets (Brown, Malouff & Schutte, 2005). Future studies that address the limitations of the current study are warranted given the potential positive psychological impact of task physical activity. Possible avenue is to explore the characteristics of physical activity that can best able to improve or promote task specific self-efficacy as a way to better predict positive affect.

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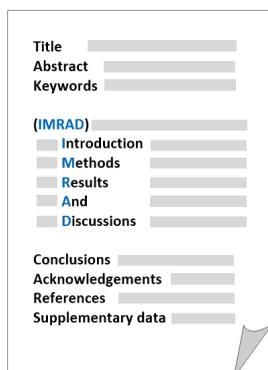
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