



Pertanika Journal of  
**SOCIAL SCIENCES  
& HUMANITIES**

**JSSH**

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*A special issue devoted to*  
**Advances in Social Science Research**

Guest Editors  
**Arnis Asmat, Norfashiha Hashim & Norhati Ibrahim**



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## *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.

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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.

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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**.

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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.
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## Preface

We are very pleased to present this special issue of the *Pertanika Journal of Social Sciences and Humanities (JSSH)* which is a compilation of 36 selected papers that were presented at the 3<sup>rd</sup> International Conference on Science and Social Research (CSSR2016). The CSSR2016 was held on 6<sup>th</sup> – 7<sup>th</sup> December 2016 in Putrajaya, Malaysia titled “Waves of Interdisciplinary Research” .

This issue themed “Advances in Social Science Research”, contain papers which had been subjected to rigorous peer reviewing process to ensure quality and consistency. The subjects range from Environmental Behaviour, Built Environment, Education, Tourism, Business and Management to Management strategies, Geography and Sports Management.

The editors acknowledge with gratitude the assistance rendered by the Chief Executive Editor, Dr. Nayan KANWAL of the Journal Division, as well as the editorial team of *Pertanika*, Universiti Putra Malaysia whose unrelenting support and advice led to smooth publication of this issue. Gratitude is also due to the Institute of Research Management & Innovation (IRMI), Universiti Teknologi MARA (UiTM), led by Professor Ir. Dr. Abdul Rahman Omar, Deputy Vice-Chancellor (Research and Innovation) and Professor Hadariah Bahron, Assistant Vice Chancellor (Research and Innovation). Last, but not least, we thank the authors, reviewers and the conference secretariat for their contribution which had enabled this publication to become a reality.

### **Guest Editors:**

Arnis Asmat (*Assoc. Prof. Dr.*)

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**February 2017**



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## **Multi-Ethnic Tolerance in Visual Arts Education: Teachers' Experiences with Culturally Responsive Pedagogy**

**Siti Zuraida Maaruf<sup>1\*</sup>, Noor Farhani Othman<sup>1</sup>, Muhamad Azhar Abdullah<sup>1</sup> and Voviana Zulkifli<sup>2</sup>**

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### **ABSTRACT**

Culturally responsive pedagogy (CRP) is developed based on cultural knowledge, the experiences of not just students but also teachers from different ethnic backgrounds, their references and performances in learning and teaching. The present case study examines the experiences of Visual Arts Education teachers in a public school in Malaysia with the aim of identifying and understanding their perception of culturally responsive teaching. Findings showed that the teachers empathised towards cultural differences, and believed that professional training for young teachers may help in creating more culturally tolerant students.

*Keywords:* Culturally responsive, ethnic backgrounds, improve creativity, tolerance, Visual Art Education

### **INTRODUCTION**

In multi-ethnic Malaysia, unity and tolerance are important and one of the ways to foster these is through implement an educational policy which acknowledges Malaysia's

diverse cultural values. This is a qualitative study on how Visual Arts Education foster multi-ethnic tolerance among the students. It examines the role of teachers in achieving this. The findings showed challenges for Visual Arts Education teachers in fostering multi-ethnic tolerance are the nonchalant attitude towards visual arts education, ethno-centric grouping and the time fringe in completing the syllabus.

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### **BACKGROUND OF THE RESEARCH**

Some local researches include those conducted by Najeemah (2005, 2008),

Raihanah (2009a, 2009b), Hamdan, Ghafar and Ghani (2010), Malakolunthu, Saedah and Rengasamy (2010), Malakolunthu (2011) as well as Ahmad, Abiddin, Jelas, and Saleha (2011).

There have been many studies on education in multicultural societies looking at the role of higher education in fostering unity in Malaysia. Among them are Najeemah (2005, 2008), Raihanah (2009a, 2009b), Hamdan, Ghafar and Ghani (2010), Malakolunthu, Saedah and Rengasamy (2010), Malakolunthu (2011) as well as Ahmad, Abiddin, Jelas and Saleha (2011). This study looks at the development of a Culturally Responsive Pedagogical (CRP) Module for Visual Art Education for secondary school students in Malaysia. Findings of this study will help enhance the curriculum in Visual Art Education (VAE). Through culturally responsive teaching, teachers can incorporate elements of culture or art from other ethnic groups in their lessons. This will inculcate greater sensitivity and tolerance among students of different backgrounds and cultures.

## RESEARCH PROBLEM

### Research Objectives

This research examines VAE teachers' perception of culturally responsive teaching including their personal experiences in practising CRP.

## METHODS

This qualitative study obtained data from interviews with five experienced teachers

with and a classroom observation of a visual arts education teacher who has 17 years of teaching experience in a public school. Purposive sampling technique was used and recordings of conversations were transcribed before they were analysed. Analysis includes locating and listing the statements of meaning into units followed by structural descriptions and the overall experience of the teachers. The general description was then sub categorised using statements and meaning units.

## Interview

Five experienced visual art education teachers were recruited for this study using the Purposive Sampling method.. The selection of research participants was also motivated by several factors which included the teachers' experience in teaching students from different ethnic backgrounds.

## RESULTS AND DISCUSSION

### Awareness and Responsiveness in Multicultural Education

Overall, results from the interview with all the VAE teachers indicated that they have the necessary knowledge and greater awareness of the importance of multicultural education . Unfortunately, their knowledge of other ethnic groups is limited by their own admission. Respondent 1 was rather perplexed in providing her understanding of multiculturalism: "*So erm ... Multicultural is the diversity in terms of culture and aa ... maybe in terms of the lifestyle.*" Additionally, according to

Respondent 2; “*So...multicultural education is not something new.... It's just that in Malaysia we are less exposed about the education of variety of culture.... which is...multicultural education.*” Despite admitting that multiculturalism is not new, the second respondent admitted that it is not well presented in the curriculum. The third respondent understood that multicultural education involves learning about the various cultures customs and beliefs. However, he remarked – “*...There are so many communities in Malaysia...but we indeed do not know much about their culture and arts...most arts and crafts are about Malay.*” Fakhri (2012) suggested that the government is responsible in ensuring the promotion of tolerance within a culturally diverse society via education. Thus, there is a need to identify various cultures in Malaysia and include them in the curriculum through appropriate teacher training programmes.

However, respondents reported that despite their lack of awareness and knowledge of multiculturalism their personal experiences with it at the social level, proved to be valuable in the classroom. Respondent 4 said; “*It's just that I got to know here and there maybe because the place where I was born which is Penang, there are a variety of culture so I could actually observe it through the interaction with friends of other races.*” Respondent 3 also remarked that her personal experiences living in a multicultural and multiracial neighbourhood were very helpful in her teaching. She was introduced to various beliefs and customs of others

during her primary and secondary schooling. This is in line with Fakhri's (2012) opinion that students must be given the opportunity to reflect on their educational experience beyond the curriculum.

### **Knowledge, Trainings and Foreign Influences in Multicultural Education**

The respondents admitted that their formal training only provided restricted knowledge and skills on multicultural education. Admitting to this shortcoming, Respondent 4 expressed the fact that: “*I was never exposed formally about multicultural education when I studied in the university.*” This was also true for Respondent 5: “*It is true...I admit I did not get formal education about multicultural education.*” Regardless of their limited knowledge of multiculturalism, these teachers did they make efforts to learn multicultural values through their social environment especially from the schools where they used to attend, and at the university where they received their trainings. According to Respondent 1 “*I think I learned a lot .... from our neighbourhood...the neighbours...non-Malay friends...just look at their ways of life and their celebrations like Deepavali... Chinese New Year...how do they celebrate right...there are lots of colours...from there I learned a little bit about their culture, I think all of us are like that.*” Thus, it is clear that most people are exposed to multiculturalism informally or through social experiences. Hamza and Hahn (2012) believed that when teachers put their personal experiences, professional skills, and content into practice,

it will make teaching and learning more meaningful.

The teachers highlighted that when they were at university, no courses were offered which specifically addressed education in a multicultural setting. For instance, Respondent 2 explained that; *“If you say in ...err...courses, in courses there are none. I knew about it in university. For Visual Arts course, there is none that focuses on multicultural issue...If I am not mistaken in methodology subjects or teaching approaches...however there is not much of it is incorporated in these subjects...for example in approaches we only touch on it just a little bit...and that is more towards the foreign countries school system like the US. There are one or two courses that mention multicultural education. However, there is no specific course by itself.”* This is similar to what was experienced by Respondent 5 who said that *“when I was in the teacher training college...err...I learned a lot from my friends of other races about their customs...but when in university there was none about our local communities.”* This shows that teachers may entirely depend on their informal or social experiences to teach in a multicultural setting. However, Hamza and Hahn (2012) highlighted that this could be useful in promoting cultural tolerance based on real-life setting and experiences.

The VAE teachers highlighted that their experiences while at university or teacher training college mostly centred on multicultural issues in other countries and not so much on Malaysia. Even so, multiculturalism was never introduced as a

complete course; instead, it was discussed as a supplementary content for the various courses offered. Respondent 4 explained that *“I do not think I learned about multicultural education per se, but in EDU subjects there are a little bit about it...I mean education subjects...As far as I can remember there are no specific courses teaching about multicultural...there were not much...but there were a lot about overseas education... we did not discuss about the situation in Malaysia...”*. Respondent 3 also mentioned that *“... there are less exposure about... the various elements of a variety of culture especially in our own communities...”*. This scenario must be factored in by curriculum developers at university and teacher training colleges because trainee teachers need to be equipped with the appropriate knowledge and skills to not only teach but to bridge cultural differences in the Malaysian classrooms. Hence, Fakhri (2012) asserted that the government and policy makers have to take up the role as custodian of a just educational system that can promote unity especially in a multicultural setting through appropriate curriculum strategies.

According to Respondent 5: *“... usually if we observe in the university, we get to learn a lot of culture originated from foreign countries such as the Western culture and Southeast Asia...Okay, there are not so much focus to err...the contents err...the culture in our country. If there is, it is not discussed widely meaning it is not discussed err...not thoroughly err...so obvious. Okay, err...I think most of the contents that we learned err at university most of them were*

*taken from the foreign countries.*” This further proves that curriculum developers for teacher training programmes need to consider their content to introduce transcontinental cultural elements but to also include domestic cultural values and elements in the development of CRP. This was discussed by Brown-Jaffey and Cooper (2011) who suggested that the diversity in local culture has to be appropriately addressed not only because it is essential but also to allow students to embrace cultural variations.

Respondent 4 felt that additional readings or field trips are important to boost acceptance of cultural differences. However, Respondent 5 raised a concern that: “...sometimes it is difficult to relate with our country’s school situation...” which indicates that certain forms of trainings and preparation are indispensable because elements of other cultural values are foreign to them and the link to the Malaysian multicultural setting is tenuous at best. classrooms. Therefore, as Donkor (2011) asserted that appropriate training is not only essential in dispersing knowledge but it to empower teachers to introduce a culturally tolerant learning environment .

### **Teachers’ Professional Preparation for CRP**

The VAE teachers who were interviewed in this study suggested that policy makers should consider establishing a curriculum focused on multicultural education not only from the transcontinental perspective but most importantly from the Malaysian

context to provide trainee teachers with the appropriate skills. The teachers felt that such move may be able to boost their skills in the CRP process which in turn would improve their ability to conduct effective classroom sessions.

Domestic multicultural content should be given priority when developing a culturally responsive pedagogical module. Respondent 1 put forth that: “... *it is necessary, necessary to have exposure about the multicultural education*”. The same respondent believes that “... *It is important, because aside from one community, ...the Malay community, we also have the Chinese and the Indians, and also the ethnics that are famous with the wood carving such as Sabah and Sarawak where we can see their uniqueness.*” The respondent further highlighted the importance of culturally responsive pedagogy in equipping teachers with the appropriate skills when teaching in a multicultural setting. Respondent 1 asserted that “... *For the teachers they need to have knowledge about multicultural education because it is very important...They teach in a class with the Malay students, Indians and Chinese so the teachers must know about their culture...because all are different... Hence the teachers need to be alert...That’s why the university should do something so that the new teacher will be prepared with this kind of situation later...*”. The respondents emphasised on the need to be alert of cultural differences which also suggested that they have to be diplomatic and tactful when dealing with multicultural issues. Barnes (2006) opined that when

teachers are attentive and perceptive of their social surroundings, such attitude would give positive impact to teaching and learning.

Since teachers are considered as the classroom ambassador for culturally responsive individual, this also depend on the trainings they receive. Respondent 4 recounted that “... *all universities and training colleges should have subjects about multicultural education to the future teachers...so that they would be more open...with issues that involve multicultural students...*”. Importantly, the trainings should prepare them to handle issues pertaining to home ground as related by Respondent 2 who believes that “... *it is necessary to have a subject that teaches multicultural education in Malaysia context...let the future teachers have the exposure on how to be prepared in order to teach students with different backgrounds... religions, beliefs and culture... There are lots of issues need to be clarified to the future teachers regarding the diversity of culture in Malaysia...*”. Respondent 4 feels that “... *as teachers we have to be sensitive... especially when there are discipline cases or fights that involve students with different races...teachers have to be rational... you cannot be biased...*”. Respondent 2 also believes that appropriate training for teachers involved in multicultural education is a burning yard stick because “... *The teachers also need to be sensitive with the students' backgrounds and culture...*”. In her research, Faizah (2014) found that teachers are empowered when they are well prepared

and received training prior to teaching in a culturally responsive classroom while developing profound understanding of cultural differences. Therefore, culturally responsive pedagogy is vital for teacher training programmes.

### **Teachers Experiences in Teaching VAE to Multi-ethnic and Multi-cultural Classrooms**

The interview with the VAE teachers brought out the essence of their experiences in teaching students of various ethnic identities. These teachers claimed they were proactive in their efforts in teaching VAE by making necessary alteration in their classroom approaches to promote student interests during teaching and learning process.

In encouraging multicultural appreciation among students, one of the VAE teachers admitted that he gives students absolute freedom to explore the diverse arts and craft. However, Respondent 3 still cautioned about following the curriculum content as closely as possible: “*when I first teach I did depend on what is in the curriculum specification...but soon I see that the students were bored...they only did Malay crafts...since then I told myself... something needs to be changed...it will be difficult for me to teach them...it is difficult to teach if the students are uninterested and bored...*” and this calls for the teacher to instantly change his or her approach which includes exploring art forms of other cultures and simultaneously find the uniqueness so it could be presented to the

students. This is what Faizah (2014) termed as a sample of hybrid activities that can intensify a culturally tolerant classroom experience.

The VAE teachers would also vary their approaches in getting feedback from students through art criticism. Students would showcase their presentation and art criticism on traditional craft demonstrating knowledge of their own cultural roots. Some of these are narrated by the teachers. Respondent 1 and Respondent 3 said they would give their students ‘freedom’ to explore the arts belonging to other cultures and that of their own. Respondent 3 for instance, would “*give them (students) leniency to explore the cultural and motive uniqueness...symbols from their own community in the class...*”. Despite giving freedom to the students in exploring the arts and craft independently, he still is cautious in his teaching plans: “*I still teach them the craft in the syllabus...it’s just that...err...if...when teaching about carvings...I let them carve the motives that they want...use colours that are close to their culture*”. This is very valuable as Barnes (2006) contended that such strategy is authentic effort and demonstrates culturally responsive teaching. Although giving students the freedom to do their own extended research, it is also important that teachers present the curriculum to guide the students.

The respondents also allowed their students to also discover the intricacies of their individual cultural heritage. Brown-Jeffrey and Cooper (2011) suggested that when teachers allow students to explore

not only their own culture but also that of others, it allows motivation for learning and intensify their cultural sensitivity and recognise other cultures. This was admitted by Respondent 4: “*I gave my students a lot of freedom...for them to explore their culture...only then they (students) will feel excited doing art activities in the class...*”. Respondent 4 also believes in teaching “*according to the Visual Arts syllabus such as when doing sculptures...such as sculpture or carvings...but I will give chance(s) to the students to create pieces or arts that are related to the students...I do not force them to create Malays (arts)...*”. Most importantly, she also does not believe in coercion when teaching arts.

Another relevant approach to teaching arts is to be a proactive teacher. This is clearly expressed by Respondent 2: “*...Actually the process of teaching and learning of Visual Arts depends on the creativity of the teacher...knowledge and also the teacher’s hardwork and diligence...*”. Not only that, the respondent also encourages students to discuss among themselves and to initiate their own art production. She adds that “*If possible we incorporate the multicultural elements in the class discussion...such as the intended meaning for a colour or symbol...let the students talk...We can also do art production activities that focuses on a certain race...For example...the painting of the lion dance or...the painting of henna decorating and motives...In that activity we can include all students...Possible for group work too...Let them talk...discussing about the motives...and the meanings...*”.

Ultimately, Respondent 2 also believes in ensuring learning arts is a vibrant because, *“It is fun to sometimes modify the activity so that the students would not be bored... do not always follow what is included in the syllabus...As a teacher, me myself is bored when I only teach the same thing over and over again...”*. At least two respondents appreciated the creativity inherent in arts as well as making learning ‘fun’ for teachers and students which may contribute to tolerance.

## CONCLUSION

The feedback from the teachers in this study revealed that despite content specifications in teaching and learning Visual Arts Education, teachers take proactive measures to ensure that students learn the art craft from other cultures. The level of teachers’ knowledge and awareness of multicultural education may be limited to whatever was discussed during training but nevertheless, they make efforts to equip themselves for real classroom situations. The teachers implement multicultural learning regardless of whether the classrooms are mono-ethnic or that there are only a handful of students from other ethnic groups. It needs to be emphasised that the teachers put to use whatever knowledge they gained from the trainings they received and adapted their approaches by considering backgrounds of their students. Therefore, the suggestion by Abdul Razaq et al. (2011) for the Ministry of Education Malaysia (MOE) to reorient the curriculum to accept diversity. As

Martin (2006) suggested, arts is central to multicultural education.

In view of the teachers’ suggestion of professional preparation to teach students with diverse cultural background, it is hoped that policy makers in teacher training institutes would enhance the curriculum with more multicultural content. The teachers who participated in this study highlighted that most contents discussed are lacking a Malaysian context. Therefore, it is timely that efforts are made to improve multicultural content in schools. It is worthy to highlight that a study showed that VAE trainee teacher (Mamur, 2012) were inquisitive in efforts to better understand multicultural content and in providing meaning for their artwork. Mamur (2012) also identified that the trainee teachers developed their knowledge and skills by learning through experiences and their social surrounding. This is also consistent with the findings of current study.

For effective multicultural education, Malakolunthu (2011) recommended sustained efforts especially in the areas of developing teachers’ professionalism, improving the curriculum, enhancing pedagogical strategies, giving a face lift to the teaching and learning materials in use, and topping off the evaluation process. Teachers who participated in the present study admitted that they took personal initiatives to improve their pedagogical strategies utilising the knowledge and skills they learnt at university. However, they suggested better trainings for multicultural



education which can improve classroom learning while enhancing their knowledge and skills. Teachers not only learn arts and craft of other ethnic groups with and from their students but they also learn to immerse themselves in the multi-socio setting. This transcends the Malaysia Education Philosophy which has been upheld since its inception in 1988.

Although findings indicate a promising future in multicultural education in the VAE classrooms, further development must be given due consideration by the Ministry of Education in efforts to strengthen multicultural education to greater level. Suggestions by Abdul Razaq et al. (2011) should be considered especially in terms of finding suitable mechanisms to promote diversity in schools. This would subsequently enrich student experiences in schools with regards to multi-ethnic learning, especially, in Malaysia which has diverse ethnic groups and culture.

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## **Spatial Analysis of Habitat Conservation for Hornbills: A case study of Royal Belum-Temengor forest complex in Perak State Park, Malaysia**

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### **ABSTRACT**

Habitat loss affects survival of hornbills in the wild and their dipping numbers has led Malaysia to classify them as threatened species. Thus, their habitat must be protected thorough greater conservation efforts to prevent extinction of that species. Royal Belum-Temengor forest complex in Perak State Park with a total area of 32,733.9 hectares, is one of the last remaining frontiers for the hornbills in Malaysia. This study attempts to justify a spatial site analysis of effective habitat conservation for hornbills. In addition, it aims to identify suitable habitat for hornbills using spatial characteristics. Analysis of Landsat 5TM satellite image in the study area was used to identify the most suitable habitat for the hornbills in Royal Belum–Temengor Forest Complex. The findings showed that the forest complex’s spatial characteristic is suitable with ideal characteristics for the survival of hornbills such as density of vegetation, swamp areas or water bodies, and mature size of emergent and canopy layer of trees. It is hoped this information will help conservationists and researchers to design a sound conservation and management plan to ensure long term survival of these birds.

*Keywords:* Dipterocarp forest, habitat conservation, hornbills, threatened species

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### **INTRODUCTION**

Hornbills are endangered and threatened species and thus classified as protected bird species in Southeast Asia and Africa. Tropical forests are rapidly lost across Southeast Asia and this is predicted to

have severe implications for many of the region's bird species (Martin & Blackburn, 2010). One of the main habitats for hornbills in peninsular Malaysia is located at the Temengor Forest Reserve and Royal Belum State Park of Perak along the Thai-Malaysia border. However, due to logging activities at the Temengor Forest Reserve, which borders the gazetted Royal Belum Forest, this habitat has been disturbed. This means that the park must be conserved as it is rich in biodiversity, and the only place in Peninsular Malaysia where all 10 species of hornbills can be found. Currently, there are 55 hornbill species in the world, with 24 in Africa and the rest in the forests of South and Southeast Asia. Eight species of the hornbills are found in Borneo while all 10 species can be found in the Belum–Temengor forest complex, all still thriving, but some are nearly endangered (MNS PBBG, 2006).

Reputed to be rich in biodiversity, Belum-Temengor forest is one of the last remaining frontiers that supports a sizable population of hornbills. The bird's unique features are their shiny ebony black plumage, huge bill and upward-curved casqued in the shade of vibrant red, orange and yellow forms, a beautiful contrast to its surrounding (Davison, 1995). These noisy, social, omnivorous birds need large tropical forest areas with fruiting trees to forage. Moreover, giant emergent trees with nesting cavities are also important to carry on their legacy, but some species nest near the ground. The 10 species of the hornbills found at the Belum-Temengor forest are *Berenicornis comatus*, *Anorrhinus galeritus*,

*Aceros corrugates*, *Aceros undulates*, *Aceros subruficollis*, *Anthracoceros malayanus*, *Anthracoceros albirostris*, *Buceros rhinoceros*, *Buceros bicornis* and *Rhinoplax vigil* (MNS, 2000; Lim & Tan, 1998; Yeap, Lim & Noramly, 2005; Yeap, Sebastian, & Davison, 2007) (Table 1) (Figure 1). The species are threatened and endangered, and can be at high risk of global extinction if no long-term conservation measures are taken (Gregory, 1995; Yeap et al., 2007). The IUCN Red List of Threatened Species indicates that a taxon that has been evaluated against the Red List is close to qualifying for, or is likely to qualify for, a threatened category in the near future (IUCN, 2016). Thus, data related to the proper habitat of the hornbills for spatial site analysis are needed. Therefore, this study proposes an effective spatial habitat conservation for hornbills in Royal Belum–Temengor forest complex.

Hornbills are omnivorous, and they feed on the *Ficus carica* (Common fig), which produces “figs”, *Parkia speciosa* (bitter bean), and other wild fruits in the forest. The hornbills are a major frugivore benefitting from the fruiting trees in their surrounding (Misni, 2013). It is an important agent for natural seed dispersal in tropical forest areas, which serves to maintain forest ecosystems.

The fruit season starts in July and reaches its peak between August and September. The sources of protein for hornbills are invertebrates and small vertebrates, such as fish, snakes, rats, bats and various insects. Thus, this species also requires natural valley and dense tropical rainforest.

### Hornbills Habitat and Population

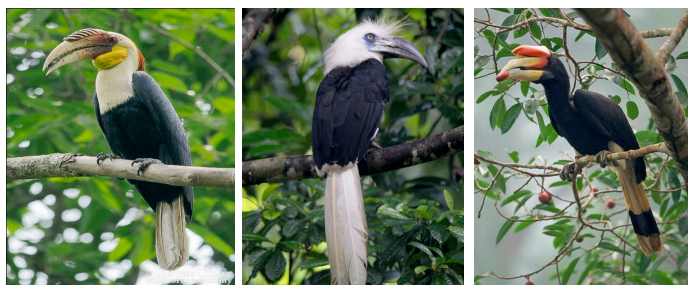
Hornbills congregate in May/June and disperse in November, moving in a north-south direction. Studies show that most hornbills in South-east Asia exploit fruit resources, which are widely dispersed in tropical rainforests (Mudappa & Raman, 2008). Thus, hornbills play a crucial ecological role in natural rainforests. A

study attempted to determine the population of hornbills and their density in order to conserve their habitat. Hala-Bala Wildlife Sanctuary and Bang Lang National Park along the Thai–Malaysia border, one of the few remaining areas of lowland forest in Thailand, has become their habitat (Gale & Thongaree, 2006).

Table 1  
The 10 species of hornbills in Royal Belum–Temengor forest complex and their current conservation status (IUCN, 2016)

No.	Scientific Name	Common Name	Local Name	Current Status
1	<i>Berenicornis comatus</i>	White-crowned Hornbill	Eggang Jambul Putih	Near Threatened*
2	<i>Aceros corrugates</i>	Wrinkled Hornbill	Eggang Jambul Hitam	Near Threatened
3	<i>Anthracoceros malayanus</i>	Black Hornbill	Eggang Kekek	Near Threatened
4	<i>Buceros rhinoceros</i>	Rhinoceros Hornbill	Eggang Badak/ Kenyalang	Near Threatened
5	<i>Buceros bicornis</i>	Great Hornbill	Eggang Papan	Near Threatened
6	<i>Rhinoplax vigil</i>	Helmeted Hornbill	Eggang Tebang Mentua	Near Threatened
7	<i>Aceros subruficollis</i>	Plain-pouched Hornbill	Eggang Hutan	Vulnerable**
8	<i>Anorrhinus galeritus</i>	Bushy-crested Hornbill	Eggang Kawan/Buluh	Least Concerned
9	<i>Aceros undulates</i>	Wreathed Hornbill	Eggang Gunung	Least Concerned
10	<i>Anthracoceros albirostris</i>	Oriental Pied Hornbill	Eggang Kelingking/ Lilin	Least Concerned

Note: \*Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. \*\*Any species is likely to become endangered unless the circumstances threatening its survival and reproduction improve.



*Aceros subruficollis*      *Berenicornis comatus*      *Buceros rhinoceros*

Figure 1. Hornbill species in Tropical Africa and Asia (Ch'ien, 2016)

The population of hornbills in South East Asia is scattered in lowland areas and hill rainforests. For example, *Aceros subbrificollis* is found in southeast Myanmar, west, south-west and extreme southern Thailand, and northern Peninsular Malaysia (Klop, Curio & Lastimoza, 2000). In addition, in 1993, the population of this bird in Thailand was estimated at 1000. In Malaysia, there has been regular monitoring of these birds at Pos Chiong@Kampung Tebang in Temengor Forest Reserve, Peninsular Malaysia since 2004 and The Malaysian Nature Society has recorded the largest number of 3261 hornbills here in 2008 (MNS, 2010). The population of hornbills is estimated at between 2500 and 9999 based on records and surveys by Klop, Curio and Lastimoza (2000).

The population of hornbills fluctuates, depending on the conditions of their natural habitat. In recent times, their population has decreased rapidly because their natural habitat is threatened by illegal hunting, encroachment of forest by aboriginals for agriculture, logging of the forests in the south as well as the loss of large hollow trees, which are suitable for their nests. Protected areas and Hala Bala Wildlife Sanctuary and Bang Lang National Park and the combined area of tropical forest stretching beyond the boundaries of Thailand and Malaysia are tropical rainforests and low-lying hill dipterocarps around a height of between 130 m and 1500 m suitable as a habitat for hornbills.

### **Hornbills Spatial Nesting Range**

Hornbills mature at the age of five and their life span is between 28 and 30 years. They breed from January to June, and nest in tall and large tree branches. Hornbills are a special type of animals, which have a natural and a renowned dedication to a monogamous partner. The female hornbills barricade themselves inside a sealed nest during nesting and brood; the nest is made of mud, faeces, and fruit peel. Female hornbills females protect their eggs from enemies such as snakes, lizards, monkeys and ferrets while the male feed the chicks and the female hornbills. The male will bring food 13 times a day to the nest and the female nest in the next three to five months until their children are independent. On average, the incubation period is about 25 days. The hornbills' nest is located in the dense natural rainforest, which is undetected by their enemy.

The most suitable habitat for hornbills is undoubtedly the primary rainforest, which has fruit trees favoured by some species and the shrubs and riverine patches favoured by others (Mudappa & Raman, 2008). Furthermore, a protected forest patch in West Malaysia, comprising 75 hectares of lowland forest and about 35 hectares of swamp forest, was reported to support only two hornbills bird species. Sometimes, those *Aceros subbrificollis* that live in an Asia, venture beyond their territories to search for fruits. Nests are aggregated within the habitat, with a mean nearest-neighbour

distance of 190 m and they are built in living as well as dead trees, at an average height of 11 m (Klop et al., 2000). Meanwhile, some nests can reach up to 22 m in height.

The big trees are favourite spots for migrating hornbills (from Thailand) that stop at the Temengor lake between September and November each year. The loss of high-canopy trees may also reduce the availability of certain types of animal prey. Species richness and population density of forest birds showed a consistent decreasing trend in the following order: primary forests > secondary forests > mixed-rural habitat > plantations; 40 year old secondary forests and the mixed-rural habitat showed high conservation potential (Sodhi et al., 2005).

**METHODS**

The study identified an area and boundary of the site study using remote sensing technique. Figure 2 shows the flow of satellite image processing and spatial analysis using map generated from Landsat 5 TM. It was used to generate land cover map for rainforest classification. The satellite image data (Landsat 5 TM) used in this study was downloaded from the United State Geological Survey. The map is matched and customised with characteristics of hornbills natural habitat. After the layer stacking image, the cloud checking is carried out to ensure there is free noise of the Landsat image. The image is later clipped to the boundary of the related study areas.

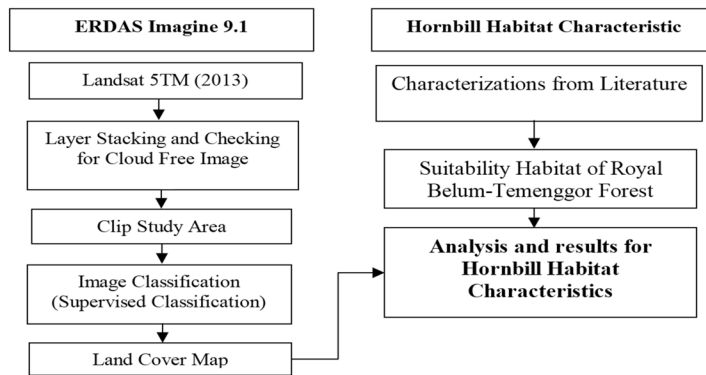


Figure 2. Flow of the satellite image processing and spatial analysis

The study area is The Royal Belum–Temengor Forest Complex. It is located in the Gerik, Perak (Hulu Perak) which is situated at elevations between 130 m and 1500 m (5°N Latitude and 101°E Longitude) (Figure 3). This 130 million-year-old reserved forest’s coverage is about 300,000 hectares and with more than 146,000

hectares of virgin forest (Davidson, 1995). The forest is divided into two sections; the upper Belum area, which stretches to the Thai-Malaysian border covering 117,500 hectares of impenetrable jungle, and the lower Belum mostly covered by Temengor Lake as shown in Figure 4. The State of Perak has decided to preserve the Belum

and Temengor forests as a permanent nature reserve. Besides that, the Belum forest has also been identified as having the potential to be an important eco-tourism destination in Malaysia (Hamzah, 2004). There are diversities in the study area with a surface elevation between 130 m and 1500 m covered with lowland and hill dipterocarp tropical forest types.

The next process is generating land use maps using the ERDAS Imagine digital image processing. Classification was performed to extract the different spectral statistical classes from the satellite images. The training fields were carried out on the Landsat satellite image. There were 21 sampling pixels to derive rainforest land cover map for the satellite image

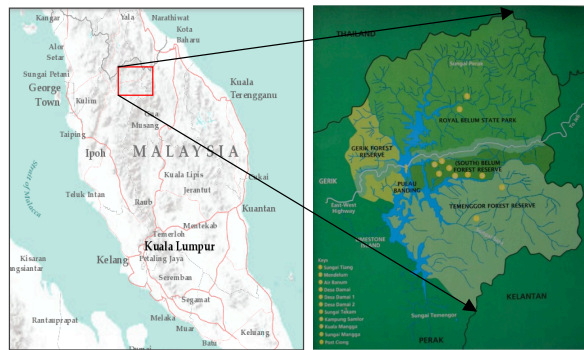


Figure 3. Location of the Royal Belum–Temengor Forest Complex (JPSM, 2016), 5°N Latitude and 101°E Longitude at elevations between 130 m and 1500 m

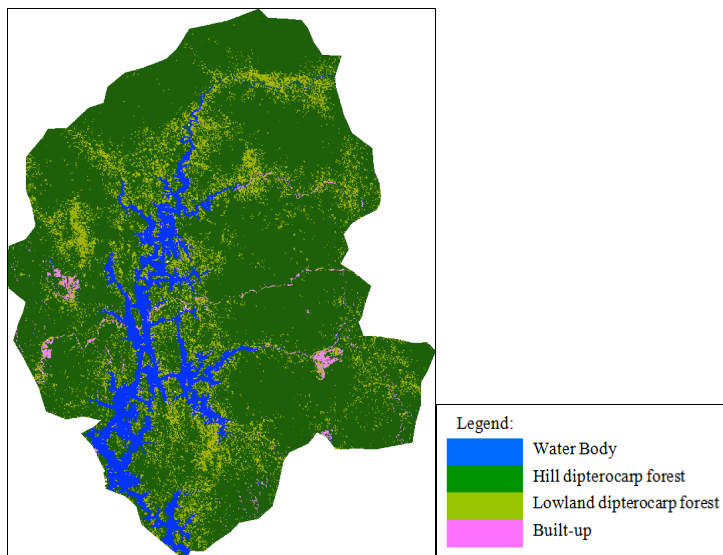


Figure 4. Land cover map for rainforest classification in Royal Belum–Temengor Forest Complex



classification through independent and supervised classification. The land cover for rainforest classification was divided into four types including; 1) water body, 2) lowland dipterocarp forest (300 m elevation), 3) hill dipterocarp forest (300–1500 m), and 4) built-up (road, aboriginal villages, and resorts). Figure 4 shows the boundary delineation of the study area. The percentage of the rainforest land cover was calculated and these values of the land cover can be used to estimate the land use/land cover types individually.

**RESULTS AND DISCUSSION**

The results and analysis are based on the existing rainforest and other natural earth surfaces in the site study, and the spatial analysis were associated with the significant character of habitat and population of the hornbills. The results and analysis are discussed in the following sub-sections.

**Rainforest Land Cover Classification**

The rainforest of Royal Belum-Temengur Forest complex is shown in Figure 3. The total acreage of the study area is 32,733.9 hectares. It is a complex terrestrial and aquatic ecosystem of dipterocarp forest (Table 2).

The four main classifications in rainforest land cover are water body, hill dipterocarp forest, lowland dipterocarp forest, and built-up area. The accuracy assessment based the supervised classification is about 91.87%. This area is covered with more than 50% of the forest area.

The hill dipterocarp forest is dominant in this forest, representing almost half of the rainforest area, 49%, followed by water body area 38%, while the low dipterocarp forest only contributes 8%, and the rest is a built-up area of 5%. The total areas of the rainforest land covering water body, hill dipterocarp forest, lowland dipterocarp forest, and built-up areas are approximately 1252.89 km<sup>2</sup>, 1605.48 km<sup>2</sup>, 244.10 km<sup>2</sup> and 170.88 km<sup>2</sup> respectively. The total acreage of natural rainforest area is 3273.36 km<sup>2</sup>, where this area has enough coverage range area for hornbills to forage for feed, which is within 225–45 km<sup>2</sup>. The Royal Belum–Temengor Forest complex is about 130 million years old (MNS, 2011), where the emergent layers of mature trees reach up to 60 m height and general canopy layers are up to 30 m width. Thus, the land covering classification of Royal Belum–Temengor Forest complex is suitable for habitat hornbills’.

Table 2  
*Rainforest land cover coverage*

No.	Forest Class Name	Area (hectares)	Area (Km <sup>2</sup> )	Percentage (%)
1	Water body	125,289.00	1252.89	38.29
2	Hill dipterocarp forest	160,548.00	1605.48	49.02
3	Lowland dipterocarp forest	24,410.00	244.10	7.46
4	Built-up	17,088.90	170.88	5.23
	Total Area	327,335.90	3273.36	100.00

### Hornbills' Habitat Characteristics

Firstly, this spatial site analysis study will focus on the significant criteria of hornbills' habitat. The significant characteristics of hornbills habitat are referred to as the birds' shelter and nest to represent their existing and sustainable population (Table 3). The suitable tree height of the hornbills' nest is under storey and canopy layers of the rainforest, about 11–22 m, which can be protected and safe from enemies such as snakes, lizards, monkeys and ferrets from destroying and eating their eggs. This tree height coincides with this tropical rainforest characteristic, especially in the primary forest area of Royal Belum, and is suggested as highly suitable for their habitat. Those rainforest trees has large canopy sizes containing wild fruit trees favoured by this

species. Also, the maturity of the canopy and emergent layer of trees potentially can be used as nesting sites.

The result of the Royal Belum–Temengor Rainforest land uses classification show that the highest area of forest is a hill dipterocarp forest that has elevation above 300 m. The lowland dipterocarp forest and the Temenggor valley or swamp areas are also essential for hornbills to search through their territories for living animals or invertebrate and small vertebrate such as large insects, fish, snakes, and frogs as a source of protein to lay their eggs. These findings show the importance dense and larger trees at exact elevation, and mature lofty forest is suitable for nesting and must be protected from any disturbances.

Table 3  
*Suitability and potential of hornbill habitat*

No.	Habitat Characteristic	Suitability and potential habitat
1.	Flying range coverage is within the 225–450 km <sup>2</sup>	The total acreage of the natural rainforest area is about 3273.36 km <sup>2</sup> and is adequate for mass flight and find feeds.
2.	Overall height range of mature trees	The forest is 130 million years old and majority heights of dense mature trees show their emergent layers are reaching up to 60 m and its canopy diameter is up to 30 m width.
3.	Nests are aggregated with a nearest-neighbour distance of 190 m	The total area of Royal Belum virgin forest is 117,500 hectares, which can potentially provide more than 6000 nest sites. Shorea, a species of tree, has holes in the upper trunk, dominantly located in the emergent layer.
4.	Temengor lake valley@swamp surrounded by dense dipterocarp rainforest	It is essential for hornbills to find their major type of food (wild fruits) through their territories and for searching for living animals or invertebrate and small vertebrate for sources of protein.
5.	Suitable tree height of nest site	The height is about 11–22 m range in the canopy and the emergent layer of the forest for a nest site, as well as to protect from enemies and ensure the eggs are safe.

## CONCLUSION

The presence of hornbills in Royal Belum–Temengor forest complex indicates that this tropical rainforest ecosystem is healthy and thriving. However, the hornbills here are classified as threatened species. Thus, there is an urgent need to conserve and protect their habitat to avoid extinction of the species. This spatial site analysis study also showed that this forest complex's spatial characteristics such as type of forest and density of vegetation, swamp areas or water bodies, and mature size of emergent and nature tree canopies are suitable for the hornbills to thrive in The Royal Belum rainforest and its surrounding area need to be maintained and conserved naturally as a habitat for these hornbills. The Landsat 5TM satellite image is effective for continuous monitoring of their habitat. A spatial site analysis for habitat conservation is a can help the authorities and others understand why natural heritage is important for the survival of this species. This spatial site analysis also shows the most sensitive area for conservation. Findings of this study can help other researchers or the Department of Wildlife to design new conservation and restoration efforts, manage and maintain the site in the long term, and help people appreciate and learn about their natural heritage.

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## **Multiple Reference Point in Determining Zone-based Prayer Time in Selangor**

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### **ABSTRACT**

Salat is an Islamic obligation (prayer) that should be performed within a stipulated period. Based on the eccentricity of the Earth's orbit and its axis which affect the time for salat has led to JAKIM establishing the Time Zone Concept considering all zones. Scientifically, two types of techniques are used to specify the time of salat: the Western Most Point technique and the Multiple Reference Point technique. This study compared these techniques based on the calculation between the various setting points and their effects on the time for salat in 2013 for all zones within Selangor. Findings showed that the Multiple Point technique is the most suitable as it represents the entire zone.

*Keywords:* Multiple Reference Point, Prayer Time Zone Concept, Western Most Point

### **INTRODUCTION**

“Tasyir” (facilitation) helps JAKIM (Department of Islamic Development Malaysia) to come up with the Time Zone Concept for salat (prayers) while the precise time for salat in a zone is that agreed by the

respective State Islamic Association to serve as a reference point in determining the exact and precise time for salat. This initiative was introduced to avoid any misconception or discrepancies when fixing the time for salat in all the states in Malaysia. Before the Time Zone concept was introduced, the time for salat was based on different places. However, such indicator cannot be used because of the existence of many villages in a city. Thus, the Time Zone concept was introduced to provide correct time for salat based on the residential zones.

Prayer time for each zone is based on various factors such as the position

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of the Sun, as well as the size and shape of the surface of the areas involved in the prescribed zone so that they can be arranged in a uniform manner. Although State religious authorities are allowed to fix the time for salat, they still need to meet specific criteria set by JAKIM. Among these criteria are (BAHEIS):

- (i) Each prescribed prayer time zone should not exceed 2 minutes.
- (ii) A reference station zone must be within the west side of the zone.
- (iii) Highland areas such as hills and mountains, or islands need to have a separate time zone (Mustafa & Mohamad Saupi, 2011).

Two (2) minutes zone means that the difference between East and West for a zone must be less than or equal to 2 minutes. A 2-minute resolution is a fix reference to prayer cycle. This period has been approved by the majority of *muftis* representing the states in Malaysia since it hardly affects the tahrir (the banned) prayer and considers the interests and virtues of prayer in the beginning of time (Mohamad Saupi, 2005). However, there are two methods used in Malaysia to determine the reference station serving as a guide for prayer time: Most Western Point and the Multiple Reference Point methods.

### **Prayer Time Zone Related Issues**

Currently, there is no uniform time zone for solat and this needs to be addressed to avoid confusion. This could be due geographical

factors. Basically, an area or zone is divided based on geographical factors. In the past, settlements were more focused in urban areas, towns and villages in the heart of a region while the border zones were uninhabited.

However, Malaysia's rapid development has witnessed the opening up of border zones which are being converted into residential areas. Thus, a relook of prayer times for all zones especially those newly occupied areas are in order. Residents living in the border area (between zones) experience confusion due to the difference in time of reference. In addition, the differences between the time in the east and west for a zone may vary. For example, the dawn on 22 December 2012 for Kuala Langat is 5.51 am, but the Muslims there have to wait until 5.55 am to pray as they refer to the reference station in Bagan Nakhoda Omar (Nurul Asikin & Mohamad Saupi, 2011).

### **The Practice of Prayer Time Zone in Selangor**

The state of Selangor with a total land mass of 8104 km<sup>2</sup> comprises nine districts, namely Sabak Bernam, Kuala Selangor, Klang, Kuala Langat, Sepang, Hulu Langat, Petaling, Gombak and Hulu Langat. The Westernmost Point method was used for determining the prayer times here, which is based on a reference station located at the most western point of the zone.

The prayer time for the state of Selangor has been set according to two zones: Zone 1 (Eastern) comprising the District of Hulu Selangor, Rawang, Hulu Langat, Petaling

and Sepang, Shah Alam, which follows the coordinates of Gedangsa Village; Zone 2 (West) comprising Sabak Bernam, Kuala Selangor, Klang and Kuala Langat which follow the coordinate of Bagan Nakhoda Omar (BNO) town in Sabak Bernam (Wan Kamel, 2007).

## METHODS

### Westernmost Point Method

This method is used by many states including Selangor when the selected point or reference station is on the west side of the zone based on the earth's axial rotation. This means that people in the mid-east of the area have to wait until the western part reaches the time for obligatory prayers. This study uses the reference point set by the Selangor Mufti Department and Jabatan Kemajuan Islam Malaysia (JAKIM) to calculate the prayer time based on this method. For Zone 1, the coordinates of Gedangsa are at latitude  $3^{\circ} 44' N$  and longitude  $101^{\circ} 23' E$ , while the coordinates of BNO, which is a reference point for Zone 2 (JAKIM, 2012), are at latitude  $3^{\circ} 46' N$  and longitude  $100^{\circ} 53' E$ .

### Multiple Reference Point Method

This method requires a few points or stations to be used as reference. This is because the westernmost station does not necessarily have the last period for Salat (Abdul Halim, 2011). The Earth, as we know, orbits around the Sun by leaning on its orbital plane. Based on the orbits, the sunset is to the North West and sometimes to the South West. This is a relative position of the earth around the

Sun tilted at  $23.5^{\circ}$  in its axis (Baharrudin Zainal, 2004). Changes in the position of the Sun result in various points or references of check-in times for prayer according to the zone and season.

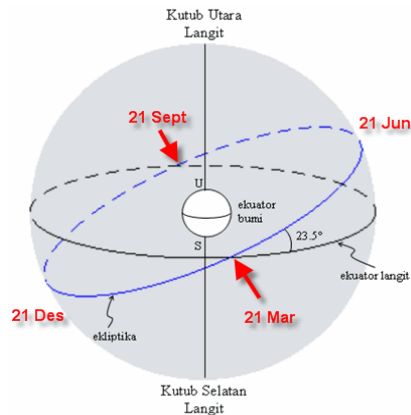


Figure 1. The movement path of the Sun

The study has selected some reference points around the circumference, representing the total districts in Zone 1 and Zone 2. The coordinates for every point earned from google earth were selected at random where the prayer times for every point are calculated. The point having the last prayer time was taken as a reference point for the zone it represents.

## RESULTS

### Zone 1

For Zone 1, it can be observed that there are certain districts that experienced delay in solat compared with kg. Gedangsa. The districts involved include Petaling, which experienced a delay for Maghrib and Isya' in January, November and December, as well

as dawn prayer in July and Asr in August and September. The district of Gombak district also experienced a delay for Isya' in January as well as dawn prayers in May and June. The district of Sepang experienced delays for Isya' in January and dawn in May and June.

Table 1  
Zone 1 areas experiencing delay time compared with Kg. Gedangsa

Date	Kg. Gedangsa		Petaling		Gombak		Sepang	
	Maghrib	Isya	Maghrib	Isya	Maghrib	Isya	Maghrib	Isya
10 Jan	19:20	20:34	19:21	20:35	19:20	20:34	19:21	20:35
11 Jan	19:21	20:34	19:21	20:35	19:21	20:35	19:21	20:35
12 Jan	19:21	20:35	19:22	20:35	19:21	20:35	19:21	20:35
13 Jan	19:22	20:35	19:22	20:36	19:21	20:35	19:22	20:36
14 Jan	19:22	20:35	19:22	20:36	19:22	20:36	19:22	20:36
15 Jan	19:23	20:36	19:23	20:36	19:22	20:36	19:23	20:36
16 Jan	19:23	20:36	19:23	20:37	19:23	20:36	19:23	20:37
17 Jan	19:23	20:36	19:24	20:37	19:23	20:37	19:23	20:37
18 Jan	19:24	20:37	19:24	20:37	19:23	20:37	19:24	20:37
19 Jan	19:24	20:37	19:24	20:38	19:24	20:37	19:24	20:37
20 Jan	19:24	20:37	19:25	20:38	19:24	20:37	19:24	20:38

It can be seen that the districts involved have experienced a delay in of one minute in prayer time compared with Kg. Gedangsa and Hulu Selangor. This means that the residents in the affected districts are likely to perform prayers outside. This situation will become more serious if it includes the Maghrib prayer as seen in the district of Petaling, since it involves prayer and fasting during Ramadan (which affect breaking of fast).

It can be observed that the difference between the most western point and the most eastern point in Zone 1 is four minutes. Different prayer time can be seen in the prayer timetable calculated for May, June and July (the study referred to prayer

subdivisions (2° 52' N, 101° 54' E) of the eastern area and Hulu Selangor (3° 47' N, 101° 19' E), which represents the western area of Zone 1). The difference between prayer time in Hulu Selangor and Hulu Langat was then calculated and the outcome showed it clearly inconsistent with the two minute criteria stipulated by JAKIM as agreed by the state mufti (Mohamad Saupi, 2005).

Meanwhile, in Zone 1, the difference between the maximum and minimum latitude and longitude is 55' and 40' (arc minutes) respectively. Thus, the difference in prayer time for the eastern and western points in a zone would be more than two minutes.



Table 2  
*Difference of latitude and longitude maximum and minimum for Zone 1*

	Latitude	Longitude
Maximum	3.78333°	101.98333°
Minimum	2.86667°	101.31667°
Difference (arc minute)	55'	40'

To overcome this problem, the Multiple Reference Point method for Zone 1 was adopted. In order to avoid the problem of a relatively large Zone 1 from achieving four minute interval, the study proposes that Zone 1 is divided into three sub-zones: the district of Hulu Selangor representing Zone 1.1, the districts of Petaling and Gombak making up Zone 1.2 while Hulu Langat and Sepang placed in Zone 1.3.

Table 3  
*Division of Proposed Districts for Zone 1*

Zone 1.1	Zone 1.2	Zone 1.3
Hulu Selangor	Petaling Gombak	Sepang Hulu Langat

The difference in prayer time for Zone 1.2 and 1.3 can be minimised to 1 or 2 minutes and 1.1 minutes for Zone 3. The difference in maximum and minimum latitude and longitude for Zone 1.1 is 20' and 31' respectively. The difference in maximum and minimum latitude and longitude for Zone 1.2 was 11' and 26', while Zone 1.3 is 28' (latitude) and 24' (longitude).

Table 4  
*Difference in maximum and minimum latitude and longitude for Zone 1.1*

	Latitude	Longitude
Maximum	3.78333°	101.83333°
Minimum	3.47000°	101.31667°
Difference (arc minute)	20'	31'

Table 5  
*Difference in maximum and minimum latitude and longitude for Zone 1.2*

	Latitude	Longitude
Maximum	3.15000°	101.86667°
Minimum	2.96667°	101.43333°
Difference (arc minute)	11'	26'

Table 6  
*Difference in maximum and minimum latitude and longitude for Zone 1.3*

	Latitude	Longitude
Maximum	3.05000°	101.98333°
Minimum	2.58333°	101.58333°
Difference (arc minute)	28'	24'

## Zone 2

Zone 2 experienced delay in prayer time compared with the town of Bagan Nakhoda Omar (BNO). Prayer times for Sabak Bernam, which are determined using the method of Multiple Reference Point, experienced a delay time of 1 minute compared with BNO as observed on 11, 15 and 19 June 2013. The district of Klang was also affected between 25 May and 6 June, in which the time for Fajr was delayed by one minute.

Table 7  
*Zone 1 areas experiencing delay time compared with Kg. Gedangsa*

Date	BNO			Klang			Kuala Langat		
	Subuh	Maghrib	Isya	Subuh	Maghrib	Isya	Subuh	Maghrib	Isya
1 Jun	5:41	19:25	20:39	5:42	19:22	20:37	5:41	19:21	20:36
2 Jun	5:41	19:25	20:40	5:42	19:22	20:37	5:41	19:22	20:36
3 Jun	5:41	19:25	20:40	5:42	19:22	20:37	5:42	19:22	20:37
4 Jun	5:41	19:26	20:40	5:42	19:22	20:37	5:42	19:22	20:37
5 Jun	5:41	19:26	20:41	5:42	19:23	20:38	5:42	19:22	20:37
6 Jun	5:42	19:26	20:41	5:42	19:23	20:38	5:42	19:22	20:37
7 Jun	5:42	19:26	20:41	5:42	19:23	20:38	5:42	19:23	20:38
8 Jun	5:42	19:26	20:41	5:42	19:23	20:38	5:42	19:23	20:38
9 Jun	5:42	19:27	20:42	5:42	19:23	20:39	5:42	19:23	20:38
10 Jun	5:42	19:27	20:42	5:42	19:24	20:39	5:42	19:23	20:39

In addition, the difference between both districts during dusk is 4 minutes as been observed over a few days in June and July. This means that the Muslim residents in Klang have to wait for 4 minutes before breaking their fast, which further contradicts the Prophet’s advice to hasten the breaking of fast as soon as the sun sets. Apart from Klang, Kuala Langat has also faced similar problem for June and July where the difference of four minutes was observed for dusk in addition to one minute delay at dawn. Multiple Reference Point was seen useful in overcoming this problem.

The difference between the East and West areas were found to be too large for a zone with the value of up to six minutes. This can be observed for dusk between 22 and 23 June, Isya’ between 10 and 14 July, and dawn in January. The value obtained is large enough for the people to have their prayers void when performed outside the actual time for prayers.

When comparing the value of difference between the maximum and minimum latitude and longitude, it was discovered that the value of difference obtained is relatively large with the value for latitude reaching 74’ (arc minutes) or 1° 14’, while the value of difference in longitude obtained is 52’ (arc minutes). These values indicate that the size for Zone 2 is large.

Table 8  
*Difference of maximum and minimum latitude and longitude for Zone 2*

	Latitude	Longitude
Maximum	3.86667°	101.68333°
Minimum	2.63333°	100.81667°
Difference (arc minute)	74’	52’

Multiple Reference Points Technique was adopted in this study to solve the problem of delay experienced by several areas. In order to address time difference that can reach up to six minutes, Zone 2 was divided into three

sub-zones to meet the two-minute criterion in which the difference in value of latitude does not exceed 1° with longitude of not more than 1/2 degree.

Table 9  
*Division suggested for Zone 2*

Zone 2.1	Zone 2.2	Zone 2.3
Sabak Bernam	Kuala Selangor Gombak	Kuala Langat Klang

The authors found that the differences in time for the eastern and western regions of Zone 2.2 and 2.3 can be minimised to 1 or 2 minutes with 3 minutes for Zone 2.1. The difference of maximum and minimum latitude and longitude for Zone 2.1 is 23' (latitude) and 33' (longitude). Furthermore, the difference of maximum and minimum latitude and longitude for Zone 2.2 is 26' (latitude) and 24' (longitude), while the Zone 2.3 is 34' (latitude) and 27' (longitude).

Table 10  
*Difference of maximum and minimum latitude and longitude for Zone 2.1*

	Latitude	Longitude
Maximum	3.86667°	101.3667°
Minimum	2.48333°	100.8167°
Difference (arc minute)	23'	33'

Table 11  
*Difference of maximum and minimum latitude and longitude for Zone 2.2*

	Latitude	Longitude
Maximum	3.2°	101.68333°
Minimum	2.633°	101.23333°
Difference (arc minute)	34'	27'

Table 12  
*Difference of maximum and minimum latitude and longitude for Zone 2.2*

	Latitude	Longitude
Maximum	3.6°	101.5°
Minimum	3.1667°	101.1°
Difference (arc minute)	26'	24'

## CONCLUSION

This study has shown that using Westernmost Point Technique to determine prayer times in Selangor is not suitable as it results in the delay of prayer times as observed in certain districts. The Multiple Reference Points Technique is therefore, ideal and provides accurate prayer time.

Zone size plays a crucial role in determining the prayer time. The difference in the latitudes between east and west in a zone of less than 1° with longitude difference of below ½° or 30' (arc minutes) for securing a two-minute difference is accurate. It was observed that areas that do not meet these requirements have a difference in prayer time of more than two minutes between east and west.

The size of zones 1 and 2 in Selangor has resulted in the difference of time exceeding two minutes between east and west, and in some cases between four to six minutes. As a result, the study proposes that each zone (Zones 1 and 2) has is divided into sub-zones; however, this cannot resolve the problems pertaining to time delay. To this end, the Multiple Reference Points method is adopted when zones are sub divided.

However, the criterion of two minute difference cannot be applied in several large

areas including Hulu Selangor and Sabak Bernam. This is because the difference in the coordinates for both districts does not meet the conditions set (resulting in the difference in prayer time to be around three minutes in these areas). Thus, it was proposed that the concept of 3-minute zone to be applied to large areas or districts. This concept is suitable considering the time taken to complete a single prayer.

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## **Strengthening People-to-People (P2P) Connectivity through Cultural Exchange: Malaysia-India Bilateral Relations in a Globalised World**

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### **ABSTRACT**

The centuries-old relationship between Malaysia and India was initiated and sustained by trade, but the impact of socio-cultural influence was equally dominant in shaping the multi-ethnic and multi-cultural façade of Malaysia. It would not be an exaggeration to say that this cultural exchange has been a vital factor in shaping the history of Malaysia. In recent years, socio-cultural factors have assumed greater importance and significance in the continuity of bilateral relations between Malaysia and India. This paper examines how culture boost ties between Malaysia and India especially through the Indian diaspora, movies, dance, drama and music. It analyses how globalisation has intensified the cultural interactions and connectivity between Malaysia and India.

*Keywords:* Globalisation, Malaysia-India relations, people-to-people (P2P) connectivity, socio-cultural

### **INTRODUCTION**

Malaysia-India relations have come a long way since diplomatic ties were established in 1957. Traditionally, their diplomatic relationship was shaped by political-nationalism factor, the present ties

are invigorated by economic, trade, and socio-cultural issues in the increasingly interdependent and inter-connected world. Globalisation has also impacted significantly on people-to-people connectivity. Society and people are more closely linked now than ever before. This paper analyses how the process of globalisation has bolstered the cultural relations and connectivity between Malaysia and India.

In the case of Malaysia and India, the movement of people between these two countries has highlighted the role of the

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Indian diaspora in facilitating economic and cultural exchange between them.

## **GLOBALISATION AND CULTURAL INTERACTION**

One of the impacts of globalisation is in the cultural aspect whereby different cultures are increasingly coming into contact with one another. Globalisation has led to an intensification of cross-cultural exchanges which, in turn, is transforming local cultures without necessarily producing cultural uniformity (Singh, 2012). Griffin (2000) who defines culture as a “way of life”, submits that contacts between cultures have led to a myriad of exchanges and adaptations that benefit all parties in food, primary commodities, art and architecture, music and dance, craft and household technology. What is evident today is that globalisation has increased the frequency of cultural exchanges, fostered deeper interactions and enabled more rapid intercultural contacts (Ardic, 2009). The wave of cultural interchanges has prompted some quarters to conclude that we are witnessing the advent of a ‘global culture’ as the local cultures are being submerged under an irresistible tide of Western influence. It is often alleged that culture is becoming more homogeneous worldwide, where soft drinks such as Coca-Cola, jeans, and western fast food are penetrating local markets. Local dialects and languages are fast diminishing in importance and traditional ways of life are being abandoned in favour of the American way of life. The expansion of American values through e “McDonaldization and

Starbuckization” is visible across the globe and have become symbols of cultural and economic globalisation. The cultural dimension of globalisation upholds the homogeneity argument that the world is sharing a more or less singular global culture (Ardic, 2009).

However, the heterogeneity argument of cultural globalisation is premised on the notion that global culture involves an increasing ethnic and cultural plurality and that diversity of modern societies undermines the power of the nation-state from within, weakening its integrative functions and leading to a crisis of legitimacy. Ardic (2009) rejects the idea of homogenisation by highlighting the existence of a “postmodern”, global culture which is fluid, fragmented, hybrid and syncretic. Appadurai (2000) maintains that cultural globalisation is both homogenous and heterogeneous across the globe, but these elements of culture are constantly contextualised, hybridised and reshaped by the peculiarities of different localities. This is clearly the case in Malaysia-India relations where people bond through music, art and culture.

### **Indian Diaspora**

The Indian diaspora in Malaysia has strengthened people-to-people ties and promoted cultural understanding and cooperation between the two nations. Besides the historical linkages, they also foster business and facilitate economic cooperation between both countries.

In general, the term “Indian diaspora” refers to all persons of Indian descent living outside of India and they preserve some major Indian ethno-cultural characteristics (Naujoks, 2009). According to Jain (2012), diaspora can be defined as “ethnic minority groups of migrant origins residing and acting in host countries but maintaining strong sentimental and material links with countries of origin”. The Indian diaspora is estimated to be the second largest in the world and has a scattered global presence. According to a United Nations survey (2015), Indian diaspora is the largest in the world with 16 million people from India spread across more than 200 countries such as in the Middle East, the United States of America, Malaysia, and South Africa (Times of India, 2016). Different waves of migrations over the years, driven by a variety of reasons, culminated in the dispersion of people from India and the creation of Indian diaspora.

In the case of Malaysia, Indians mostly emigrated as kangani and voluntary labourers to work on rubber, tea, and oil-palm plantations in British colonies. Indians who came during the British colonial era to Malaysia, then known as the Malaya, and other parts of British colonies are known as “Old Indian Diaspora”. The “New Indian Diaspora” however, includes engineers, doctors, and IT professionals who are part of the global citizens who willingly travel to countries in search of better economic opportunities (Jain, 2012). The “New Indian Diaspora” is linked to the e process of globalisation. This

transnational engagement of people, riding on the processes of globalisation, has been reinforced through global networks of families, friends and businesses, which are symbiotic and which enable the exchange of shared ideas of cultural, social and economic interests. This flow of “New Indian Diaspora” started after the Indian independence and gathered momentum with the emigration of IT professionals in the 1990s. The diaspora communities that live outside the boundaries of their countries, but maintain links with their country of origin are progressively getting larger and stronger. Globalisation and the concomitant expansion of telecommunications have made the world smaller and partly contributed to this development. The media, telecommunications and other technologies have become so extensive and pervasive to the extent that they have dramatically elevated human interactions to entirely new and unprecedented levels. Given the increasing numbers of Indians residing all over the world, the Indian government cannot ignore their presence and has therefore devised various schemes to protect and safeguard the interests of the overseas Indians.

Among the programmes that Malaysia has benefitted from is the ‘Know India Programme’ (KIP) which is a three-week orientation programme for youths (between the age of 18-26 years) of Indian origin to introduce India to them and promote awareness on different facets of Indian life. This programme provides a unique forum for students and young professionals

of Indian origin to visit India, share their views and bond closely with contemporary India (Education Wing Coordinator). After completing KIP, the Indian Diaspora Youths become Youth Ambassadors of art, culture, and heritage. More than 75-80 Malaysian students/youths participated in this programme in 2016 (MIC, 2016).

Another programme in place is the 'Overseas Indian Youth Club' (OIYC) whose aim is to keep the overseas Indian youths in touch with the developments in India and create a sense of belonging towards their country of origin. The core membership of OIYC is youths who had participated in the KIP (Education Wing Coordinator). In an effort to create stronger affinity and networking with the diaspora youths with their ancestral motherland, the Ministry of Overseas Indian Affairs (MOIA) supported the opening of Overseas Indian Youth Club in the following places:- (a) Consulate General of India Durban, South Africa, (b) High Commission of India in Kuala Lumpur, Malaysia, (c) High Commission of India Colombo, Sri Lanka, (d) High Commission of India Port of Spain, Trinidad and Tobago and (e) High Commission of India, Port Louis, Mauritius. Funds have also been provided to the Consulate General of India, Melbourne and High Commissions of India for launching Overseas Indian Youth Clubs.

Malaysia has also established its own International Indian Youth Games (IYIG). This tournament was initiated by Malaysia in 2010 and is being conducted annually. This tournament was established with the

objective of fostering brotherhood through sports as well as providing an international platform for Indian youths to excel in sports. It concentrates on strengthening the Indian communities from different nations and providing avenues for social interactions. The IYIG first started as a sporting event between one particular state from India i.e. Tamil Nadu and Malaysia. Given the strong response, other countries were also invited to participate. This tournament attracted six nations: Singapore, India, Sri Lanka, South Africa, Maldives, and France. Malaysia has been the host for this tournament since its inception in 2010. Among the sports included in this tournament are football, karate, swimming, badminton, bowling, squash, and tennis. According to the organiser of this event, such sports activities have forged closer interactions among the people of both nations. In 2016, a football competition was held and countries like India participated in the event (MIC, 2016).

There is also a day celebrated by the Indian diaspora called Pravasi Bharatiya Divas (PBD). *Pravasi* literally means non-resident or overseas Indians, *Bharatiya* means India and *Divas* means day. Hence, *Pravasi Bharatiya Divas* (PBD) is regarded as 'Non-resident Indian Day'. This event is a flagship event held with the cooperation of the Indian government, specifically the Ministry of Overseas Indian Affairs and the Federation of Indian Chambers of Commerce and Industry (FICCI), the Confederation of Indian Industry(CII) and the Ministry of Development of the North



Eastern Region of India. It is an annual affair since January 2003 with a view to connect India to its vast Indian diaspora and facilitate in sharing of their knowledge, expertise and skills on a common platform. The PBD is celebrated on 9th January every year to mark the contribution of the Overseas Indian community to the development of India (JNU Library Resource Centre). In 2016, the convention was held in New Delhi, India which provided a forum for the overseas Indian community to engage with the government and people of the land of their ancestors for mutually beneficial activities (Mahatma Gandhi the greatest Pravasi, 1915). These conventions are useful for networking among the overseas Indian community residing in various parts of the world and sharing their experiences in various fields. The event also provides a forum for discussing key issues concerning the Indian diaspora. Malaysia has been an active participant at these meetings with a large annual delegation of representatives from the government and private sectors. A key outcome of this forum is that the Indian Government has permitted to its diaspora i.e. Persons of Indian Origin (PIO) now holding foreign passports (such as Malaysians) to apply for a PIO or Overseas Citizens of India (OCI) card if they themselves had earlier held an Indian Passport or their parents or grandparents had been born in India. Therefore, India recognises its diaspora as those having emigrated from the Indian territory up to four generations ago. However, this policy does not include

descendants of 5<sup>th</sup> or more generation down the line (Singh, 2012).

Governments of many developing countries together with international agencies are now highlighting the diaspora's potential for their socio-economic development. Maintaining the bonds between India and the people of Indian origin is an emotional need for Indians in Malaysia. Many Malaysian Indians, in particular, the Tamilians, Malayalees, Telugus, Sikhs, and Indian Muslims, still maintain strong family linkages with their relatives in India. Besides developing strong social bonding, it has also provided economic advantages for both countries.

### **Indian Movies and Music/Dance**

The 'Shahrukh Khan, Salman Khan and Amir Khan' fever in the late 1990s was a new phenomenon among Malaysians, especially the Malay community who thronged the theatres to watch Hindi movies. This was unprecedented and there was no turning back after that. Historically, Ramayana and Mahabharatha have inspired the local Malay literary works (Gopinath, 2011). In fact, Ramayana and Mahabharatha are no longer considered as exclusively of Indian cultural origin given the process of diffusion, adaptation and localisation over the last two thousand years. The Malay culture exercised enough influence to make modifications to inspire the emergence of *wayang kulit*. The similarities between the art form in these two countries underscore the popularity of Indian music and dance in

Malaysia (Naidu, 2011). India's classical dances have been assimilated into the Malaysian culture and are no longer solely associated with India. There are many professional dance academies established in Malaysia like Sutra Academy which offers classes in Indian classical dances such as Bharata Natyam and Odissi. Ramli Ibrahim, the director of the Sutra Academy, is Malaysia's cultural icon and legendary dance choreographer of the Indian classical dance. He was the first Malaysian to be bestowed with the prestigious Sangeet Natak Academic Award in 2011 by the President of India. The award is recognised as the highest national honour conferred on performing artists, teachers and scholars of performing arts in India. Thus, the existence of traditional dancers like Ramli Ibrahim, who have gained international repute and acclaim, only shows the strong cultural links between India and Malaysia.

Likewise, Tamil and Hindi movies (either in Tamil or Hindi) are hugely popular among all the ethnic groups in Malaysia. In fact, Hindi movies have been a source inspiration and lifestyle for many Malaysians. Furthermore, Malaysia is among the most sought after venue for filming Tamil and Hindi movies because of its cheaper cost. The country has been featured numerous times in high profile Tamil and Hindi films. Moreover, some of the high-profile movies are released almost the same day and time as in India. The presence of many Indian movie heroes and heroines in Malaysia to promote their movies, as well as the film fair festivals and award

shows have all built closer ties between the people of the two countries. For example, an India-Malaysia Bollywood album was launched in 2013 aimed particularly at reviving interest among Indian tourists to Malaysia. Thus, there is a cultural amalgamation through Bollywood (Sinroja, 2013). Furthermore, with the MoU signed between the Federation of Indian Chambers of Commerce and Industry's (FICCI) Entertainment Committee and Malaysia's Multimedia Development Corporation (MDEC) in 2010, there has been a significant collaboration in broadcasting and digital content. One such collaboration is the annual exhibitions called 'Cinemascape' to promote cinema tourism. 'Cinemascape' is an annual event where leading Indian film producers meet and explore business opportunities or locations for filming together with the international tourism boards/organisations from India and other countries (Malaysia Tourism Report, 2012). Tourism Malaysia participates in this event to showcase Malaysia's attractions as well as to provide information and guidelines on filming in Malaysia. Potential Indian film producers are targeted to make Malaysia as their filming destination. Incentives such as 30 per cent discount are offered to production houses - besides facilitating all ground-level arrangements such as finding locations, getting permits, and providing transport. This annual event has proven to be successful for Malaysia as more Indian film producers view Malaysia as one of their favourite destinations. For instance, in 2016, Tourism Malaysia together with AirTravel

Enterprises India Limited (ATE), introduced 'Kabali' movie package deal as one of the promotional strategies to draw Indian travellers to Malaysia (Chandarvathani, 2016). The movie starring the famous South Indian actor, Rajinikanth, was filmed in Kuala Lumpur and a few other cities in Malaysia. It had indirectly promoted Malaysia worldwide as an attractive filming and tourist destination.

Another important landmark that shows the seriousness in Malaysia-India relations is the establishment of the Indian Cultural Centre (ICC) in Kuala Lumpur.

### **Indian Cultural Centre (ICC)**

The ICC was inaugurated in Malaysia in 2010 to promote Indian culture in Malaysia. The ICC was an outcome of many discussions, deliberations and collaborations between Malaysian academicians, NGOs and the Indian High Commission. The establishment of this centre is viewed as an important initiative of the Government of India (GOI) in keeping with the high priority it attaches to its bilateral relations with Malaysia. Another goal of ICC is to give India's cultural presence in Malaysia a major fillip. The ICC is under the Cultural Wing of the High Commission of India in Malaysia and administered by the Indian Council for Cultural Relations (ICCR), an autonomous organisation of the Ministry of External Affairs of India, which promotes awareness and appreciation of India's composite culture and heritage abroad.

The ICC has an interesting range of cultural services and performances. In

2016, there were more than 400 students enrolled for various classes offered in ICC such as yoga, kathak dance, Hindi classes and traditional musical instruments such as *tabla*. A majority of the students enrolled in these classes are Malaysians with a small number from the diplomatic fraternity. There are also corporate leaders learn Hindi here so that they can communicate with their Indian staff more effectively. The ICC also places special emphasis on working with Malaysia's local cultural organisations such as the Temple of Fine Arts in promoting Indian culture. It is also used as a venue for music recitals, dance performances, art, craft and photography exhibitions, movie screenings, plays, lectures, lecture demonstrations, book readings, seminars and workshops attracting talents from India and Malaysia. ICC also plays a role as complementing and supplementing the efforts made by cultural organisations in Malaysia to promote Indian art and culture. It also organises symposia, seminars and social gatherings during which the Indian cultural heritage is always on display. Besides that, the Centre also places special emphasis on working with local cultural organisations in promoting Indian culture. The ICC conducts outreach programmes in the form of workshops, training sessions, seminars and plays with local institutions to promote Indian culture at the grass root levels. The ICC's work is looked upon as complementing and supplementing the efforts already being made by local cultural organisations in Malaysia. A core group called the 'Friends of Indian Cultural

Centre' was created comprising eminent personalities in the field of art, music, dance, literature, media and academia, as well as patrons of the arts. This core group also endeavours to reach out to a multi-cultural and multi-ethnic audience.

In short, ICC promotes India in its own way and serves as a bridge in people-to-people connectivity. Given that ICC was only established four years ago, it is an important 'one-stop-centre' in strengthening people-to-people connectivity in promoting Indian culture and traditions. These initiatives are taken to bridge the cultural disparities between the two countries and to forge a stronger understanding and appreciation between them.

### **ENHANCING PEOPLE-TO-PEOPLE CONNECTIVITY**

Interactions between the people of the two countries in areas such as tourism, education, culture, entertainment are undeniably important factors that have contributed to the enhancement of bilateral relations between the two countries.

Although the social and cultural aspects between Malaysia and India appear to be moving in the right direction, there are pockets of concern that pose challenges. Among them is the need to improve people-to-people connectivity by accepting Malaysia's culture in totality. It is important for India to understand that the Malays and Chinese account for 90% of the Malaysian population. Hence, there could be collaboration between Malaysia's

cultural centres such as Istana Budaya and ICC to capture the holistic dimension of Malaysia's multi-cultural mosaic. According to Moses (2012), the media also has to collaborate by providing editorial space on Malaysia-India collaboration so that people would better understand and appreciate the commonalities present in both cultures. Malaysia has its official news reporters based in New Delhi to provide updates on India.

Another area of improvement is the Visa on Arrival (VoA) that the Malaysian government introduced. In 2006, in conjunction with VMY 2007, this VoA was offered to visitors from eight countries including India. One of the reasons Malaysia introduced the VoA was also to attract the business community. Although some 80,000 VoA were approved for India - only 30,000 Indian tourists returned home. Many Indian tourists abused this VoA by overstaying in Malaysia, becoming involved in drug cases and crimes. Hence, this VoA facility was revoked in 2010 (Mun, 2013). However, since 2014, Malaysia relaxed visa restrictions for tourists from India traveling to Malaysia through a third country, namely Singapore and Thailand. A one-week stay is granted to these tourists. The Malaysian High Commission in India had also increased visa application fees from INR1000 to INR3000 ever since it outsourced visa processing to a private company; that had affected tourist arrivals to Malaysia. Whether the increase in visa processing fee would have a big impact on tourist arrivals to Malaysia is yet to be seen.

The last area for improvement is the role of the Indian Cultural Centre (ICC) in Malaysia. Apart from conducting dance and musical classes, ICC needs to expand its role and organise inter-cultural talks and programmes. This could reduce the knowledge gap between Malaysia and India. At present, many Indian expatriates and the Indian community in Malaysia participate in ICC activities. This could be improved by attracting other communities such as the Malays and Chinese, so that it creates synergy between the people of Malaysia and India. Efforts taken by companies like Agenda Surya Communications to organise annual fairs such as Global Indian Shopping Festival, as well as facilitating Indian traders to sell their products such as textiles, food, and Indian crafts to the Malaysian market are welcomed. Agenda Suria Communications serves as a one-stop centre for shoppers to explore India. Traders from various states in India such as Kashmir, Rajasthan, Tamil Nadu, Gujarat, Kerala and Punjab are invited to sell their products directly to the people in Malaysia. This event has proven to be a success and has been conducted since 2002. In 2016, this event was organised in Penang, Perak, Kuala Lumpur and Johor. Such events besides showcasing the Indian fashion and culture also benefit Indian traders.

## CONCLUSION

Malaysia-India relations have been premised on strong historical, social, and cultural linkages and globalisation has not undermined that. Both governments

have used the cultural dimension to promote greater connectivity and people-to-people contacts through travel and tourism. Currently, Malaysia and India are seeking to further expand and deepen their bilateral relations. With their shared history and cultural connections, Malaysia has expressed its determination to strengthen its relationship with India through broader cooperation and engagement. However, it is evident that the process of globalisation has greatly fostered the interconnectedness of people and cultures. The reduction in the costs of air travel and increase in the frequency of flights have boosted this physical connectivity. A rich network of personal relationships through travel, study, work, business, sports, and cultural exchanges have opened the doors to forge better understanding and enhance deeper cultural appreciation between the two countries. In the context of Malaysia-India bilateral relations, this has been a catalyst in fostering closer relations. People-to-people contact between Malaysia and India are actually limited to Malaysian Tamilians who visit their relatives or temples in India. There are not many people-to-people collaborations such as student exchanges and media linkages. Therefore, the government must promote this form of collaboration. For example, although Malaysia and India cooperate on education, they should not limit it to exchange visits and twinning programmes. Instead, there should be joint projects between universities. Moreover, at present Malaysia only recognises some degrees from selected universities in India.

This could be improved in time to come. Similarly, cooperation in cultural activities helps in promoting mutual respect and appreciation for one another. Likewise, more initiatives should be launched in the tourism and movie industries focusing on viable programmes that encourage greater convergence of interests. Given that the Malaysian Immigration office in India approves an average of 450,000 visas yearly, one could only anticipate that people-to-people relations between Malaysia and India would get stronger and closer. Moreover, Malaysia has one of the largest number of Persons of Indian Origin (PIO) in the world, about 2 million (about 8% of Malaysia's population). Although the majority are Tamil speaking (over 80%), there is a significant percentage of Telegus, Malayalees, and Punjabis. The Tamilians in particular, serve as an important bridge between Malaysia and Tamil Nadu, and India as a whole. Hence, the relationship between Malaysia and India is very strong, and it could be argued that their ancient and historical linkages serve as important factors driving the bilateral relationship in the decades ahead.

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## **The Relationship between Collective Efficacy and Organisational Citizenship Behaviour among teachers in Malaysia**

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### **ABSTRACT**

The main objective of this study is to examine the role of collective efficacy on organisational citizenship behaviour among teachers in Malaysia. A conceptual framework was developed based on past empirical studies. Findings of the study showed that the two constructs, namely collective efficacy and organisational citizenship behaviour, contributed to the teachers' academic achievements.

*Keywords:* Academic achievements, collective efficacy, constructs, organisational citizenship behaviour

### **INTRODUCTION**

In the modern education system, it is challenging for teachers to achieve goals set by the school and nation (Vigoda-Gadot, Beerli, Birman-Shemesh & Somech, 2007; Dipaola & Hoy, 2005a, 2005b). Hence, organisational citizenship behaviour (OCB) is essential to ensure efficiency

and effectiveness of any organisation (Kasekende, Munene, Otengei, & Ntayi, 2016; Chang, Nguyen, Cheng, Kuo & Lee, 2016; Kandeepan, 2016; Abd El Majid & Cohen, 2015; Cohen & Eyal, 2015). The concept of OCB is important to improve teacher training, and learning in classrooms (Yilmaz & Tasdan, 2009). It is especially vital to Malaysia's economic growth and national development (Ministry of Higher Education, 2015). According to Deputy Prime Minister and Minister of Education, the education sector is the most important key area of the twelve areas identified by Malaysian Government in Economic Transformation Programme to transform Malaysia into a high-income nation by 2020.

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Additionally, the Malaysian education sector is targeted as hub for developing human capital under the New Economic Model (The World Bank, 2013).

The term organisational citizenship behaviour (OCB) was introduced in organisational literature only in recent years (Podsakoff, MacKenzie, Paine & Bachrach, 2000; Podsakoff, Whiting, Podsakoff & Blume, 2009).

The OCB has been shown to benefit individuals, groups and organisations (Oplatka, 2009). Dipaola and Tschannen-Moran (2001) examined OCB in the field of education. Their survey of teachers and students in selected public schools in Ohio and Virginia showed that OCB among the teachers was significantly associated with school climate. The concept and application of OCB has not been well studied in the context of education particularly in schools (Erturk, 2007; Dipaola & Hoy, 2005a; Dipaola & Tschannen-Moran, 2001).

Teacher's Self-Efficacy, an important determinant of OCB, is defined as "the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplishing a specific teaching task in a particular context" (Tschannen-Moran, Hoy & Hoy, 1998). Self-efficacy is important in order to perform a task confidently. Teachers with a low sense of efficacy are reluctant to practise OCB in their workplace. Several studies have shown that self-efficacy significantly contributes to with OCB and positively impacts on student achievement (Mangadu Paramasivam, 2015; Cohen & Mohamed Abedallah, 2015). There are limited studies

on the link between collective efficacy and OCB among teachers. Hence, the main aim of the study is to conceptually discuss their relationship, namely between collective efficacy and OCB among teachers.

## LITERATURE REVIEW

### Theoretical Background-Organisational Citizenship Behaviour

The concept of OCB was introduced by Barnard in the late of 1930s. He suggested that the formal job duties are difficult to complete in an effective manner and thus, it was necessary to encourage employees to exhibit citizenship behaviour that is discretionary, go above and beyond their formal job duties. This will then lead to a cooperative work environment (Barnard, 1938). In the mid-1960s, Katz (1964) termed OCB as supra-role behaviour. The supra-role behaviour can be defined as non-prescribed behaviour or behaviours that are not required in advance for a given job (Katz & Kahn, 1966). This behaviour is important for the smooth functioning of any organisation but it is not stated in the formal job description (Katz & Kahn, 1966). Bateman and Organ (1983) stated that this behaviour "lubricates the social machinery of the organization" (p. 588). For example: assisting and helping co-workers to solve problematic job related issues, ensure workplace cleanliness, helping co-workers with heavy workloads, conserving organisation resources and tolerate the inevitable temporary impositions of work without complaining (Bateman & Organ, 1983; Katz & Kahn, 1966).

The term OCB was coined by Organ and his colleagues (Bateman & Organ, 1983; Smith et al., 1983) who defined it as “individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate, promotes the efficient and effective functioning of the organization” (Organ, 1988). Lambert and Hogan (2013) argued that OCB has three important elements. First, this extra role behaviour is not explicitly required as part of formal job duties. Second, this behaviour does not directly benefit co-workers and organisation, but, it indirectly provides support to co-workers. Third, for those employees displaying OCB does not guarantee extra rewards. Most of these organisations encourage their employees to exhibit OCB in order to maintain and improve their organisational social system. As the result of this effort, it will significantly contribute indirectly to the effectiveness of the organisation (Organ, 1997). Additionally, OCB among employees is critical to the survival of the organisation (LePine, Erez & Johnson, 2002). This OCB includes cooperation, accommodation, assisting and helping co-worker in completing their daily tasks. However, no penalty or punitive actions are taken against those who do not practise OCB (Organ, 1988).

Dipaola and his colleagues were the first to investigate and examine the OCB concept in schools. It is important for scholars and researchers to study how OCB can be cultivated in school organisations as the components of OCB are not prescribed

in the teachers’ job description (Dipaola & Tschannen-Moran, 2001). Studies have shown that OCB is vital for betterment of the organisation (McKenzie, 2011) and significantly improves student achievements (Blanchard, 2012; McKenzie, 2011; Jackson, 2009; Wagner, 2008; Dipaola & Hoy, 2005a; Jurewicz, 2004; Dipaola & Hoy, 2004). By exhibiting OCB, teachers will be able to adapt to the dynamic environment more efficiently (Van Der Vegt, Van De Vliert & Oosterhof, 2003; Miles, Borman, Spector & Fox, 2002).

### **Collective Efficacy**

The construct of efficacy evolved from two main theories, namely locus of control theory and social cognitive theory, developed by Rotter (1966) and Bandura (1977, 1986, 1993, 1997, 2002) respectively. Self-efficacy is defined as “the beliefs in one’s capabilities to organize and execute course of action required to produce a given attainment” (Bandura, 1997). In Rotter’s (1966) locus of control construct, the control of reinforcement is either on the teachers or the environment. The locus of control theory is an individual belief that the outcome of his or her actions is either within their control or the environment or events beyond their control (Rotter, 1966; Zimbardo, 1985).

Basically, the locus of control can be divided into internal control and external control (Rotter, 1966). If the reinforcement is a result of his or her luck, chance, fate or other external factors, then these forces are considered as external control. While internal control refers outcomes that are

within his or her control. Most of us fall between the two extremes.

Social cognitive construct is a psychological model of behaviour that emerged primarily from the work of Bandura (Denler, Wolters, & Benzon, 2014). For self-efficacy, it has emerged as an important concept within social cognitive theory (Denler et al., 2014; Bandura, 1997). Bandura (1997) opined that teachers with high efficacy have confidence and the belief that they can perform a particular task successfully. For social cognitive theory, it is a belief in one's own capability to produce certain actions which is related to self-efficacy. Whereas, the locus of control theory is the belief that outcome is either within their control or external factors. Thus, perceived self-efficacy has insignificant relationship with locus of control. Hence, the nature of teacher efficacy should be perceived within the social cognitive theory instead of locus of control theory (Bandura, 1997).

Social cognitive theory refers to individuals and collectives that have control over their lives via agentic action which is influenced by their perceptions of efficacy toward a specific task (Goddard, 2001). The term agency is an important fundamental assumption for social cognitive theory. The efficacy belief is an important key to the operation of agency when an individual and collectives believe they have better capabilities to perform the task or duty successfully, then he or she or the collectives are more likely to perform the activities (Goddard & Goddard, 2001). Goddard

contended that efficacy belief in both individual and collective level underpin the social cognitive theory (Goddard & Skrla, 2006; Goddard, Hoy & Hoy, 2000; Goddard, LoGerfo & Hoy, 2004a; Hoy, Sweetland & Smith, 2002; Goddard & Goddard, 2001). Both teacher efficacy and collective efficacy (CE) are anchored in agency assumption highlighted by Bandura. For teacher efficacy, it could be through the human or personal agency for control over their lives (Hoy et al, 2002). If a teacher possesses efficacy belief based on his or her capability, then he or she will overcome obstacles and face failure obstinately (Goddard et al., 2004a). In CE, the teachers have belief in their combined capabilities to achieve organisational or faculty objective (Goddard, LoGerfo & Hoy, 2004b; Hoy et al., 2002). Teachers with favourable CE beliefs will exhibit positive OCB to influence their student's academic performance as well as tenaciously overcome adversity (Hoy et al., 2002; Goddard & Skrla, 2006). In short, the belief in CE will foster creativity, effort and persistence in order to attain a goal successfully.

The concept of CE is further defined as "the perceptions of teachers in a school that the faculty as a whole can organize and execute the course of action required to have a positive effect on students" (Goddard, 2004, p. 184). If the teachers have a sense of CE, it will further improve student achievement and organisational performance (Goddard et al., 2000). Therefore, according to Hoy et al. (2002), the perceived CE is an important collective perception considered

an organisational property. Goddard et al. (2000; 2004a) highlighted that there is limited research on the effect of CE compared with teacher efficacy. Hence, this construct is included in the present study.

### **Collective Efficacy and Organisational Citizenship Behaviour**

The CE improves school accountability, enhances student performance (Goddard et al., 2004a), elevates socioeconomic status (Goddard & Goddard, 2001) smoothens decision pertaining to education (Goddard et al., 2004a). Studies have indicated that CE (Goddard et al., 2004a; Hoy et al., 2002; Goddard, 2001; Goddard et al., 2000) and organizational citizenship behaviour (Burns & Dipaola, 2013; Dipaola & Hoy, 2005a; 2005b) are significantly linked to student achievement. According to Goddard et al. (2004b), CE is considered as a more recent construct compared with self-efficacy. Therefore, there are lack of empirical studies to support and validate the relationship between CE and OCB among teachers in school context (Jackson, 2009; Goddard et al., 2004b).

Somech and Drach-Zahavy (2000) examined the relationship between CE and OCB among teachers from 13 elementary schools in Israel. They found that CE is significantly related with OCB towards teamwork but its relationship was insignificant towards students and organisation. This might be due to the nature of the research sample bias. There were 251 respondents and out that, 31 were male teachers. Several studies have shown that

men perceived higher sense of commitment towards their job and organisation compared with female workers (Choong, Keh, Tan, & Tan, 2013; Choong, Tan, Keh, Lim, & Tan, 2012; Akintayo, 2010; Shapira-Lishchinsky, 2009). Choong and his colleague further clarified that female married academics are required to perform dual role in their live as they have the responsibility to take care of their children as well as being committed to their job.

Somech and Drach-Zahavy (2000) showed that by enhancing collegial interactions will influence the willingness of teachers to exhibit OCB or extra role behaviour within their workplace (Somech & Drach-Zahavy, 2000). Additionally, the construct of CE is originally rooted in teacher self-efficacy. Tschannen-Moran and Barr (2004) contended that the difference between CE and teacher self-efficacy is that the former is premised on its effect on the school as a whole while the latter refers to individuals. Hence, it can be concluded that CE is closely link to OCB. This is confirmed by Cooper (2010) whereby the CE is significantly related to OCB. Therefore, this study found that collective efficacy is significantly related to organisational citizenship behaviour among secondary school teachers in Malaysia.

### **CONCLUSION**

The findings of this research, it is hoped would provide school principals with better knowledge and insights into the relationship between CE and OCB. Additionally, this concept can be useful to the Ministry

of Education as OCB is proven to be one of the most powerful antecedents of student achievement (Oplatka, 2009; Yilmaz & Tasdan, 2009; Dipaola & Hoy, 2005a, 2005b). Vigoda-Godat et al. (2007) contended that the management of schools need to ensure teachers are willing to exhibit citizenship behaviour such as handling students' special needs, monitor students with disciplinary problems, and provide innovative teaching and willing to devote his or her extra time and effort to guide poor students.

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## **Persons with Disabilities and Their Motives for Participating in Sports**

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### **ABSTRACT**

The purpose of the study is to identify motives for athletes who are disabled to participate in sports. Hundred (n=100) respondents (60 male; 40 female), aged between 16 and 55 and who are wheelchair bound participated in this study. Close-ended questionnaire that tested five motives were distributed to the participants. They were: ask-oriented motives, social-integration motives, fitness-oriented motives, ego-oriented motives and social-affective motives. The SPSS version 5 was used to analyse data. Descriptive statistical method to obtain mean and the standard deviation and independent T-test showed no significant difference in motives factors among the male and the female athletes ( $p = .091$ ;  $p > 0.05$ ). There were no significant differences on both gender perceived fitness-oriented motives ( $p = .697$ ;  $p > 0.05$ ) and social-affective motives ( $p = .124$ ;  $p > 0.05$ ) and task-oriented motives ( $p = .895$ ;  $p > 0.05$ ) as the main factors for participation. However, there were significant differences in social-integration motives ( $p = 0.043$ ;  $p < 0.05$ ) and ego-oriented motives ( $p = 0.033$ ;  $p < 0.05$ ). It is important to encourage sports participation among persons with disabilities and the facilities need to be disabled friendly.

*Keywords:* Motives, persons with disabilities, physical fitness

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### **INTRODUCTION**

The term sports include all forms of competitive or even recreational physical activities. One of the focus areas in sport psychology is on sports socialisation, or the reasons or motivation to participate in sports. It is important to understand

what motivation is in the context of sports and participation. Every individual has different motive to participate in sports such as enjoyment, physical fitness, social relationship or goal attainment (Bartle & Malkin, 2000). Jennings (1997) revealed a direct relationship between sports participation and parental influence. Young athletes stated that their reasons for participating were to improve skills, to experience challenge, have fun and to be physically fit (Shapie, Oliver, O'Donoghue, & Tong, 2014). Even though people with disabilities are less likely to engage in regular or moderate physical activity than people without disabilities, yet, they have the same needs to promote their health and prevent secondary disease (Henderson, 1999). People with disabilities may experience life in a different way and so, it is possible that they may be socialised into sports differently than able-bodied athletes. Person with disabilities are identified as a targeted subgroup at particular risk for disease and premature mortality that can be reduced or prevented by increasing participation in regular physical activity (Santiago & Coyle 2004). Earlier studies suggest that athletes who are visually-impaired tend to be inactive throughout their life (Abdullah, Ampofo-Boateng, & Zawi, 2008)

Many athletes with disabilities agreed that their participation in sports affirmed their competence and worth (Caruthers & Hood, 2004). According to Bartle and Malkin (2000), an increase in participation in wheelchair sports, is an indication

adolescents with disabilities were motivated to remain healthy, competent and socially active. When comparing wheelchair-bound participants and non-participants, those engaging in physical activities or sport have a positive spirit of well-being and high vigour with lower tension, depression, anger and confusion (Bartle & Markin, 2000). The success in wheelchair sports stems from a number of factors, including perseverance, overall health and quality of the equipment. Jennings (1997) reported that adults and youth participants who use wheelchair have different source of motivation. Youth participants with disabilities focus their participation reasons around fun, being with friends, improving skills and being competitive.

Many individuals with a spinal cord injury (SCI) rely on their wheelchairs to complete their daily mobility tasks. Unfortunately, there are many mobility challenges for wheelchair users. Meyers, Anderson, Miller, Shipp, and Hoenig (2002) found that wheelchair users reported curbs, uneven terrain, and travel surface as barriers to their mobility. Kilkens, Post, Dallmeijer, van Asbeck, and van der Woude (2005) reported that skills performance to be moderately associated with participation. Therefore, the inability to perform certain skills can affect the athletes' independence and participation in daily activities (Oyster et al., 2012). In the past, deaf athletes were often associated with school for the hearing impaired. Participation in sports is no exception. Selecting the right activity

can produce a very positive and beneficial experience for them.

Additionally, there are certain accepted psychological principles that can be used to motivate athletes with disability. (Roy Choudhury 2001). Motivation is vital in competitive sports, where the athletes and players try their best to accomplish the goal to perform better in competition. Nosek and Hughes (2003) stated that women have greater risks of psychological problems and women with disabilities are among the most disadvantaged group. Self-esteem and its related constructs appear to play a central role in the psychological well-being of the disabled. Thus, the aim of the study is to identify the motives for disabled people to participate in sports.

## **METHODS**

### **Design**

This is a quantitative research to explore and investigate the motives for sports participation among the disabled. A questionnaire survey was conducted using 100 respondents who were wheelchair athletes.

### **Sampling**

A total of hundred (n=100) respondents (60 male; 40 female), aged between 16 and 55 and who are wheelchair bound took part in the study. They were from Industrial and Rehabilitation Centre for Physical

Disabilities, Spastic Children Centre of Selangor, Cheras Rehabilitation Centre and Wheelchair Tennis Malaysia.

### **Instrumentation**

The questionnaire comprised closed-ended items. There were two sections: Section A consisted of 10 multiple choice structured questions to obtain demographic data such as age, marital status, education level and occupation. Section B consisted of questions that required Likert-type Scale responses for five motivation factors: Task Oriented Motives, Social Integration Motives, Fitness Oriented Motives, Ego Oriented Motives and Social Affective Motives were adapted from Bartle and Malkin (2000), and Shapiro and Yun (2003). The reliability of the instrument was high with Cronbach's alpha value of 0.75.

### **Data analysis**

The analysis was conducted using the SPSS method. Descriptive statistical method such as mean and the standard deviation and independent T-test were used in the study.

## **RESULTS AND DISCUSSION**

### **Demographic data**

Sixty male and 40 females wheelchair bound respondents took part in the study. They were mostly athletes, basketball and tennis players (refer Table 1).

Table 1  
*Type of sports based on gender*

Numb	Sports	Male	Female	Frequency	Percent (%)
1	Athletics	8	5	13	13.0
2.	Basketball	7	5	12	12.0
3.	Swimming	2	1	3	3.0
4.	Table tennis	7	9	16	16.0
5.	Powerlifting	4	3	7	7.0
6.	Wheelchair tennis	12	8	20	20.0
7.	Boccia	6	4	10	10.0
8.	Others	14	5	19	19.0
TOTAL		60	40	100	100

Table 2 shows the motivation factors for male and the female respondents. For the male respondents, the mean value for the social integration motives was the highest among the five factors (2.92) followed by the fitness oriented motives (2.90), social affective motives (2.65), task oriented motives (2.52) and the lowest was the ego oriented motives (2.35).

For the female respondents, the fitness oriented motives (2.85) was the highest among the 5 factors examined in the study, followed by social integration motives (2.72), task oriented motives (2.50), and social affective motives (2.43) and the lowest was the ego oriented motives (2.10).

Table 2  
*Comparison of motivation factors based on gender*

	Male		Female	
	Mean (m)	Rank	Mean (m)	Rank
Social Integration	2.92	1	2.72	2
Fitness oriented	2.90	2	2.85	1
Social Affective	2.65	3	2.43	4
Task Oriented	2.52	4	2.50	3
Ego oriented	2.35	5	2.10	5

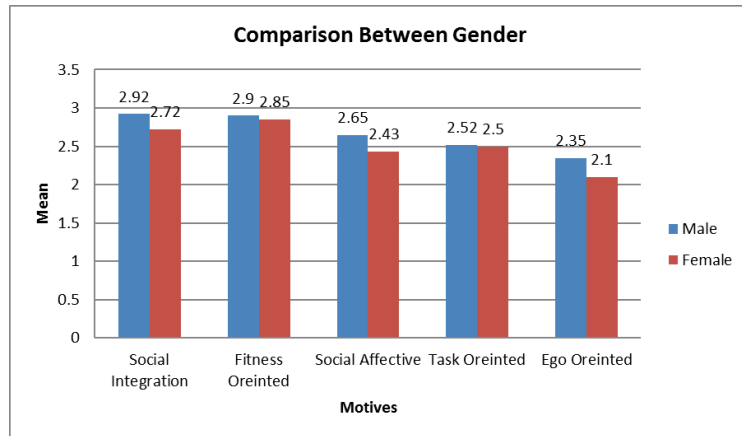


Figure 1. Comparison of Motivation factors based on gender

Table 3 shows the results of t-test between genders. There was no significant difference in motivation factors among the male and females (0.091,  $p > 0.05$ ).

Table 3  
T-test result between male and the female athletes

Gender	N	Mean (m)	T	df	Sig. (2)
Male	60	2.12			
Female	40	2.00			

\*( $p < 0.05$ )

Table 4 shows the  $p$  value for the five motivation factors. There is no significant difference in motive among the male and the female wheelchair athletes ( $p = 0.091$ ;  $p > 0.05$ ). There are no significant differences on both gender perceived fitness-oriented motives ( $p = 0.697$ ;  $p > 0.05$ ) and social-affective motives ( $p = 0.124$ ;  $p > 0.05$ ) and task-oriented motives ( $p = 0.895$ ;  $p > 0.05$ ) as the main factors for participation. However, there are significant differences in social-integration motives ( $p = 0.43$ ;  $p < 0.05$ ) and ego-oriented motives ( $p = 0.033$ ;  $p < 0.05$ ).

Table 4  
*Result of t-test based on the five motive factors*

Motives	T	Sig. (2 tailed)
Social Integration	2.050	.0438888
Fitness Oriented	0.3900000	.697
Social Affective	1.552	.124
Task Oriented	0.1303	.895
Ego oriented	2.169	.033

\*( $p < 0.05$ )

Based on the results, the social integration motive ( $p=0.43$ ;  $p < 0.05$ ) was significant and male athletes had higher scores. A social integration motive is the second most important motive for females. The male respondents strongly agreed that sports can give them the opportunity to explore and experience new environment rather than to socialise as expressed by the females. Social integration was more important for athletes with disabilities. Bartle (2000) also found that only significant difference between able and disabled male adolescent basketball players was that the latter emphasised on social integration as the primary motivation factor.

Fitness is the second most important motivation factor. The male respondents were concerned with their public appearance and therefore, exercise was important for them in order to be physically fit compared with women. Santiago and Coyle (2004) indicated that nearly half of the women with disabilities were unable to do work due to their disability or illness but they engaged in physical activities to remain healthy. Blinde and McCalister (1999) identified the dominant theme among the women was to

maintain their physique. Women perceived sports and physical activity as a way to help preserve and maintain a healthy body.

Both genders scored high on the Social Affective Motives factor. The male athletes indicated parental and familial support and encouragement as very important while the female respondents place a higher value on and the companionship of their loves ones. According to Feminist Majority Foundation (2001), female athletes with acquired disabilities already have support from their teachers, coaches, friends and partners. Cresswell, Hodge and Kidman (2003) surmised that participation in any kind of activity by persons with disabilities depends on the friendship and relationship with others. Social support by friends, family members and health care personnel appears to be a powerful determinant of their disability adjustment (Krischner, Ormond, & Gill 2000).

Items on improving skills level were regarded as important by both genders. The Ego oriented motives is the least important among all the factors for both genders. Wilhite, Keller, Hodges, and Caldwell (2004) tested disabled basketball athletes



on task and ego orientation. They revealed that task orientation scored higher than ego. Therefore, it is essential to note that the advantages of supporting task oriented approaches in sport.

All six items in ego oriented motives (ego motives, recognition, personal reward, getting medal, gain respect, take the sport as the challenge and instead of being in the group) showed that the male athletes scored higher than the females show of their masculinity and male identity. Youths cited competition as their primary motive, similar to their able-bodied counterparts, while the adults cited the health aspect of exercise as a primary factor.

## CONCLUSION

It is a truism that through sports, we can embrace people from all walks of lives, and in this case bringing the disabled into the mainstream and offer them a more meaningful live. Participating in sports will arguably allow them to have a sense of belonging by socialising with the able-bodied, and the opportunity to explore new environment and places.

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## **Analysing Functional Performance of Commercial Premises using Metaphysical Approach and Standard Commercial Guidelines (SCG)**

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### **ABSTRACT**

This paper presents initial findings of a study on functional performance of commercial buildings. Comparison between traditional and modern physical design and planning approaches and practices were carried out by reviewing and analysing selected buildings. The main aim of this study was to find out whether the selected building designs were in compliance with any metaphysical theories. A total number of 13 commercial premises owned by Government agency were selected and of these, six were categorised as “performing”, while seven were “non-performing”. Two locally well-known commercial premises were used as “benchmark”. Findings reveal some evidence of link between metaphysics and functional performance of the commercial buildings. Based on the results of this study, the metaphysical approach in planning and design could be considered to complement the modern design practices. However, further analysis needs to be carried out involving larger samples to confirm the findings of the present study.

*Keywords:* Commercial buildings, environology, functionality, metaphysics, observational technique

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### **INTRODUCTION**

In 1924, famous architects Le Corbusier and Van Doesburg in 1924 had alluded to the importance of functionality as “the ultimate goal of design”. A good design can be described as a product that fits its purpose.

However, some buildings did not achieve their intended functions. An

example is Pruitt Igoe housing scheme in St Louis, USA. The complex designed by Minoru Yamasaki was initially planned to house modern apartments for community living but later became notorious. It had to be demolished just after 25 years of occupancy to make way for new building complexes. Similarly, the Suleiman Courts in Kuala Lumpur which was built under the direction of the First Prime Minister of Malaysia and meant to be a symbol of progress for an independent and modern Malaysia, had experienced the same fate as Pruitt Igoe. Completed in 1957, Suleiman Courts gave way to the building of a major shopping complex after 20 years of completion as a result of poor construction. This shows non-performing buildings can be converted into performing ones, by way of appropriate planning and design. Thus, it begs the question whether physical planning of buildings that relies on modern approach is sufficient to predict the building performance once in operation and if metaphysical factors can be considered during the planning and design stages.

The original design and planning of the Hong Kong and Shanghai Bank in Hong Kong is an example where metaphysical approach was adopted and proved to be a success. Designed by Norman Foster, inputs from a geomancer during the design stage was followed closely, including comprehensive study of the circulation routes and structural elements, for better prosperity (Lip, 1997). According to Joe Choo Sook Lin, who is the current president of Malaysia Institute of Geomancy Sciences

(MINGGS), the physical design and planning of most buildings in Singapore's commercial area had direct involvement of a Feng Shui master. This requirement was insisted by the late Prime Minister, Lee Kuan Yew. This provides further evidence of possible influence of metaphysical factors at planning for prosperity and success of commercial buildings. Thus, it is interesting to find out whether the consideration of metaphysical factors in planning and design influenced the business.

A report published in 2010 showed retail malls had enjoyed growth in Kuala Lumpur, although the trend indicated that shoppers were highly polarised (Group, 2010). Newly established malls are often packed with visitors while the existing ones are virtually abandoned.

### **Functional sustainability and metaphysical philosophy in planning and design**

“Functionality” is a criterion of a building to ensure it is sustainable and serve the needs of people. The “users’ well-being” shall be the ultimate goal of any building and provide a sense of dignity and pride within the design environment (Caan, 2011). Caan insists that the basic purpose of design is to offer comfort and ensure health and harmony. Such philosophy had already been practised by ancient Malays (Al-Ahmadi, 2006; Gibbs, 1987) and people in China and India. These old practices guided planning and design for their buildings and settlements.

The metaphysical approach provides rules and regulation to align the proposed building with the entire universe (Gibbs, 1987; Koh, 2003; Pegrum, 2000). This alignment is based on the sciences of the cosmos and cosmology (Akkach, 2005) and is related to the arts and science of Geomancy (MacLean, 1997). Today, the term ‘environology’ is commonly used to refer to this practice (Malaysian Institute of Geomancy Sciences, 2014).

Metaphysics is a branch of philosophy relating to an abstract theory that goes beyond reality (Oxford University Press, 2014). It relates to the unseen flow of energy forces that can be felt. The word ‘energy’ here refers to physical or mental strength (Merriam Webster, 2014). The Metaphysical approach revolves around the Universe and the Earth which are interconnected by an ‘electromagnetic field’ and other forces, such as gravity, uptake of earth forces and cosmic forces among others. The same applies for buildings designed by humans, aiming to achieve sustainability.

### **The Aim, Objectives and Scope of Study**

The main aim of this study is to discover whether metaphysics influence the performance of buildings. The first objective is to appraise the design systems of three established Asian cultures, namely Feng Shui, Vastu Vidya and Tajul Muluk as well as standard commercial guidelines (SCG). The second is to analyse selected building premises based on ‘compliance’ with culture-based system and ‘conformance’ with SCG.

The last objective, the study attempts to determine whether the two systems impact on the functional performance of commercial premises and whether metaphysics approach are relevance.

The study is focused on Government agency-owned business premises or commercial buildings (GAB) at various locations. Two prominent commercial buildings i.e. SOGO in Kuala Lumpur and PKNS Complex in Shah Alam were selected. The study areas were Selangor and Negeri Sembilan. The samples were divided into three categories. Category A: Government agency-owned buildings (performing cases) - 7 samples; Category B: Government agency-owned buildings (non-performing) - 6 samples; Category C: Two selected commercial buildings where business is good. This study was based on the fact that a number of Government agency-owned commercial buildings have not performed as initially intended (METRIX), 2005; KPMG, 2006).

### **A brief background of Government Agency-owned Commercial Buildings (GAB)**

Government Agency-owned Commercial Buildings (GAB) is an agency established by the government to encourage the participation of *bumiputras* in business and entrepreneurship. As part of its strategies, the agency has developed physical infrastructure including commercial buildings or complexes in various locations and sizes, nationwide. The selection of premises and

locations are based on the advice from consultants. It is estimated the number of Government agency-owned commercial premises are more than 500 and they are rented to *bumiputra*-owned small businesses or individuals at a minimal rental rate. In addition, this agency also provides advisory service to business owners to nurture and guide them to succeed in business.

## METHODS

A study by Poldma (2010) found that subjective experience uncovered issues that are functional. According to her, listening to the users allowed the researchers to obtain the needed information. Hence, the present study used the same observational approach adopted by Mansouri Daneshvar, Khosravi and Rezayi (2013), and Saruwono (2007), in assessing existing case study rather than subjective experience. This is both quantitative and qualitative research in addition to observational technique. The process involved visiting and studying buildings of similar function or type, and/or observing the buildings' physical design and planning characteristics (Foster, 2008). Spatial zoning, organisation, adequacy of spaces, and environmental comfort were also examined.

The identification of GAB in Selangor and Negeri Sembilan was carried out with the assistance from their officers. They buildings were categorised as "performing" and "non-performing". The criteria set for a performing building are based on high frequency of visitors, and an occupancy

rate of above 80%. The premises should also enjoy a good rentals records with a minimum cost for utilities maintenance. Two prominent commercial building "where business is good (sustained for more than 20 years)" were taken as a benchmark or "control samples".

A standardised format was devised in order to ensure accuracy and consistency of recording using metaphysical approach and Standard Commercial Guide. The analysis is based on the existing images on physical design condition, and the building layout planning. The building-surrounding context was taken from the Google satellite images accessed in September 2015. Philosophically, all of the metaphysical approach and the SCG characteristics were assessed point-by-point at the selected samples. It should be mentioned that during observational visits, several tools were used such as laser measurement, light meter, indoor thermometer and compass.

Awang Lah, Abdul Wahab, David, and Saruwono (2015) examined the metaphysical criteria of three established Asian cultures, namely the Feng Shui, Vastu Vidya and Tajul Muluk. The first objective of this study is to appraise building design that uses the metaphysical approach. However, for practicality, this study attempts to focus only the first two architectural principles: the function of space and the aesthetic of sense, as it involved completed buildings or premises.

Guidelines for commercial buildings are based on the modern functionality

Table 1  
*The metaphysic approach guidelines (Awang Lah et al., 2015)*

Architecture Theory	Purpose of Approach	Guidelines Components	Guidelines Elements
Functional	Human cosmic order	Energy generator/accumulation	Magnetic bar
		Orientation	Determine by four cardinal points. Determine by natural object dominates external environment Determine by built object dominates external environment
		Configuration	Concentric composition. Auspicious shape/proportion.
Aesthetic	Human five sense	Spatial Hierarchy	Principle of superiority (internal human's organ systems)
		Symbolism	Spirits (parents & ancestor) – all 5 sense Motivation (religion & culture) - sight Belief (lifestyle & personality) - sight

Table 2  
*The standard commercial building approach guidelines (Capon, 1999; Littlefield, 2012)*

Architecture Theory	Purpose of Approach	Guidelines Components	Guidelines Elements
Functional	Human needs	Physical functioning	Concentrated plan form Magnet (attractions) Clear ceiling minimum Width of shop Depth of shop Car park Goods & service docks Staff facility
	Satisfaction	Activities housed in it Comfort & convenience	Lifestyle needs Shop fittings Environmental standards
Aesthetic	Satisfaction	Pleasure (moral & psychological): Political (will), philosophical (meaning), religious (meaning)	Ornament Shop frontage Window display

design theory and standard commercial building guidelines - Table 2 (Capon, 1999; Littlefield, 2012). Another factor for functional design is economy and efficiency to fulfil human needs and satisfaction (Capon, 1999). This characteristic was not considered in this study since it is not under physical design and planning category. All the characteristics were derived from theoretical analysis study and were arranged in appropriate category for comparison purpose at the end of data analysis. The reason for using two different approaches is to see the influences of metaphysics factors on performance of buildings.

### **The Conformance and Compliances Analysis**

Overall, 15 selected commercial buildings and premises were observed and analysed. The numbers of the samples were decided after the process of screening, based on the researcher criteria and selected by the GAB officer. A few were rejected after observation; some ignored because of time issues and some were refused in terms of accessibility. Two commercial buildings were taken as “benchmarks” in recognition for their “sustainability in business”. It would be interesting to discover whether their ‘sustainability’ or successes had something that relates to the planning and design that ‘comply’ with metaphysical principles and ‘conformance’ with SCG. As for GAB, 13 out of six “non-performing” commercial premises were selected. For the purpose of the analysis, each was labelled with a code denoting the name of building

and location as follows: NSA, RBA, KDA, KJA, JMA and LCP. The “performing” ones were seven premises and each labelled as: SBA, SCP, SPD, TSA, ARM, AGK and SBC.

With the exception of “benchmarks buildings”, all are GAB and located in several areas in Selangor and Negeri Sembilan considered strategic, with established neighbourhood (urban maturity area between 10-20 years), which are considered high, middle and low income groups. All GAB buildings were designed by qualified professionals. The “compliance/conformance analysis” checklist format was created as part of the instruments of observation in order to ensure accuracy and consistency. Items which were found to be in compliance or conformance with the characteristics listed were marked as “1” and the non-compliance/conformance items were marked as “0”.

Each building was analysed against five metaphysical principles, namely energy generator or accumulation, building orientation, spatial hierarchy, physical configuration and planning. Each principle and implied functional character / design response is illustrated in Table 1 and 2. Altogether, there are 13 metaphysical aspects, which are taken as compliance variables. The total “score” for each case (commercial premise) is the sum of all 13 variables converted into percentage in the analysis. The mapping of variables against the Standard Commercial Guidelines (SCG) comprised 19 compliance variables under three main principles: physical



functioning, comfort and convenience afforded, and pleasure (moral and physical). Similar scoring method was used as with metaphysical aspects, adjusted to 19 variables on compliance.

**RESULTS AND DISCUSSION**

The following displays the compliance trends of buildings vis-a-vis the metaphysical

factors and Standard Commercial Building Guidelines (SCG).

Referring to Figure 2 for GAB performing samples, the result indicates that the significant range between the highest and the lowest scores is remarkable. However, the middle scores were quite consistent. The sample, which obtained the highest score of 92%, fulfilled all metaphysical criteria except on one component.

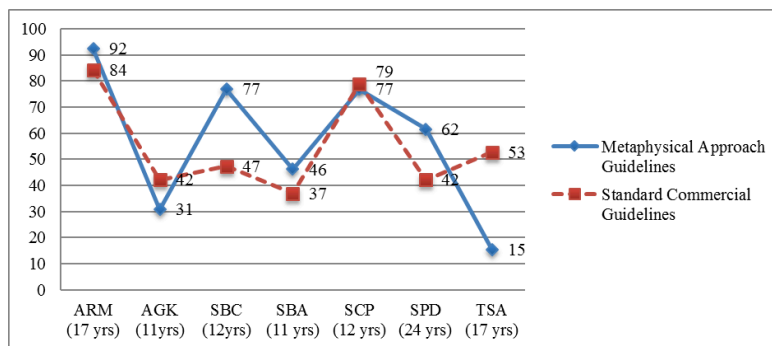


Figure 2. The compliances assessment results on the GAB performing commercial buildings

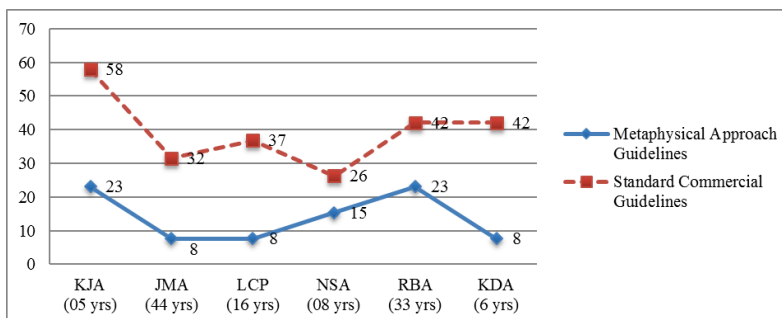


Figure 3. The compliances assessment results on the GAB non-performing commercial buildings

For GAB non-performing building category (Figure 3), data show that the scores are in the range of 8% to a maximum of

23%. Among the samples, three out of 7 premises obtained barely 8%, which means each fulfilled with just one metaphysical

criterion. The highest in the range fulfilled three out 13 criteria.

Both the “benchmark samples” obtained perfect scores for all the metaphysical criteria as shown in Figure 4.

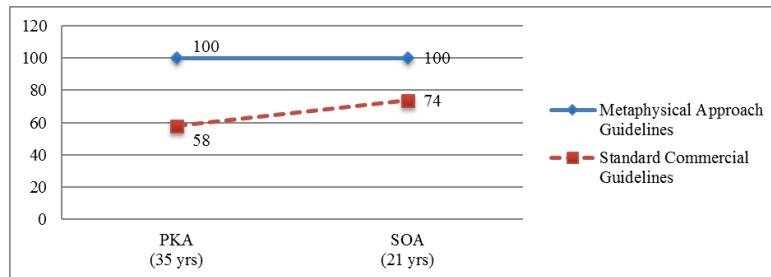


Figure 4. The compliances assessment results on benchmarks commercial buildings

Data seem to suggest that there is some relevance between metaphysical compliance and the functional performance of buildings. Thus, buildings which had complied closely with the metaphysical criteria, are more likely to perform better compared with those, which are not. The benchmark samples provide strong evidence that support this result.

Analysis using the SCG shows a slightly different trend. For GAB non-performing samples, (Figure 3), the lowest score recorded was 26% or complied with 5 of 19 criteria whereas the highest scored 58% (11 of 19). The performing samples (Figure 2) recorded better scores and the lowest score obtained was 37% (7 of 19), while the highest was 84% (16 of 19).

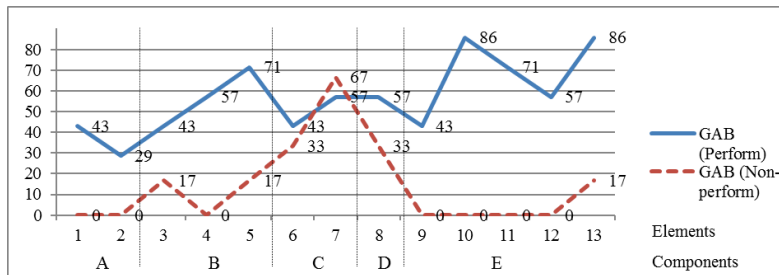
The two benchmark samples obtained 58% and 74% scores respectively as shown in Figure 4. Therefore, the scores show a different pattern compared with the

metaphysical criteria. Only two performing samples scored consistently high for both metaphysical and SCG criteria. Other samples vary in terms of score. For instance one performing sample obtained remarkably better score for SCG (53%) despite scoring a mere 15% for metaphysical criteria. Similar case was also observed for non-performing category. For SCG compliance, it scored 53% compared with 23% for metaphysics.

As shown in Figure 5, none of the non-performing samples scored for “energy generator” and with the exception of one case, none scored for “symbolism”. Further examination shows that non-performing category scored quite notably in the “configuration” criteria.

The scores under performing categories seem to spread quite evenly for all the five main criteria. For instance, with the exception of one case, all six other samples scored under the “symbolism” criteria.

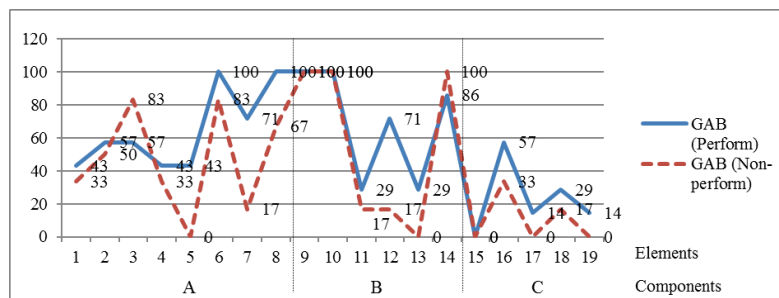
Assessment of Functional Performance Using Metaphysic Approach



- A : Energy Generator/ Accumulation
- B : Orientation
- C : Configuration
- D : Spatial Hierarchy
- E : Symbolism (Spirits, Motivation and Believe)

Figure 5. The components and elements of metaphysical approach guidelines ‘Compliances’ in relation to building performance

It is interesting to discover that one sample which obtained only two out of 13 criteria is under the performing category. Close examination, for this one case it obtained a score each for “orientation” and “configuration” (refer Figure 5).



- A : Physical Functioning (Business Nature)
- B : Comfort and Convenience Afforded
- C : Pleasure (Moral and Psychological)

Figure 6. The components and elements of Standard Commercial Guidelines (SCG) ‘Conformance’ in relation to building performance

The results show some evidence that compliance towards SCG had some influence on the functional performance of buildings (refer to Figure 6). However, the trend has not been as metaphysics. Even when the benchmark samples are compared in terms scores, the metaphysics criteria was perfectly matched but not against SCG. Thus, it would be possible to conclude that compliance with metaphysical

criteria would likely result in buildings that functionally perform better.

Figure 7 shows the circumstances of ‘non-performing’ and ‘performing’

commercial premises related to ‘compliances’ with metaphysical approach guidelines and ‘conformance’ with Standard Commercial Guidelines (SCG).

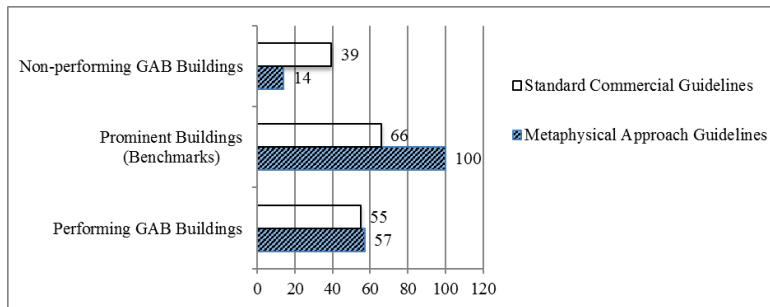


Figure 7. The ‘Compliances’ of metaphysical approach guidelines and the ‘Conformance’ of Standard Commercial Guidelines (SCG) in relation to building performance

However, the findings have to be taken cautiously and further research is needed to verify and confirm the findings.

**CONCLUSION**

The present study has attempted to discover the influence of metaphysics on the outcomes of commercial building planning and design. It used a metaphysical approach criteria and Standard Commercial Building design to record compliance levels of selected commercial buildings. The initial findings provide some evidence that metaphysics has, to certain extent, influenced the functional performance of the buildings. However, more detailed analysis has to be carried out in order to confirm the findings.

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## Re-assess or Risk the Slow Death of School Based Assessment

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### ABSTRACT

The aim of this study is to analyse the success of School Based Assessment (SBA) implemented in 2010/11 in Malaysia. It examines teachers' readiness, confidence level and enjoyment in teaching mathematics. It also investigates if participation in SBA professional development courses impacted on teachers' readiness for it. A total, of 260 teachers (65 males and 195 females) were selected as respondents while 12 teachers were interviewed for their feedback. The findings show that the teachers involved in the study have a low level of readiness and confidence in implementing SBA. Professional development courses related to SBA did not have any impact on teachers' readiness level. More than two-thirds of them reported that they did not enjoy teaching since the implementation of SBA. This study indicates more effort is needed to enhance teachers' competency in achieving the goals of SBA.

*Keywords:* Confidence, implementation, professional development courses, readiness, School Based Assessment

### INTRODUCTION

School Based Assessment (SBA) assesses the cognitive, affective and psychomotor domains. The objective of SBA is to enhance student learning which cannot be assessed

easily through public examinations (Hong Kong Examinations and Assessment Authority, 2013). Under the new assessment system, good students could progress faster whilst the weaker ones are allowed to take up more time in learning. The SBA approach in evaluating students' academic progress was officially introduced by the Ministry of Education Malaysia and was implemented periodically in line with the Standards-based Primary School Curriculum beginning 2011 as part of Malaysia's educational transformation reform (Malaysian Examination Syndicate,

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2012). The transformation of the current system was initiated to move away from centralised examinations and to focus on continuous assessment, improve student learning, conduct more holistic assessments, and improve examinations at the school and central levels. Chappuis and Chappuis (2008) claim that SBA is able to provide relevant information to students during the learning stage, enhance their performance and status of their achievements to meet their learning objectives. In addition, formative assessment techniques provided information on the quality of teaching (Hall & Burke, 2003).

The SBA confers greater responsibility on the teachers to design quality assessments that match students' learning outcomes. However, it was discovered that teachers' workload had increased since the implementation of SBA, resulting in dissatisfaction with the policy (Azrul, 2011; Lee, 2012). Teachers are required to record their assessments online but they experience frequent server malfunctions. Azlin, Ong, Mohamad, Rose, and Nurhayati, (2013) confirmed that "under this system, teachers are given greater responsibility to design quality assessments that align with the learning outcomes" (p.102). Their additional responsibilities include updating the filing systems which contain students' evidence of learning and their examination marks. On the contrary, there have been various measures put in place to enhance mathematics teaching. For example, abacus (also known as Sempoa) was introduced to boost pupils' computation and mental

arithmetic skills in early 2000s, but this practice too ended. In 2004, PPSMI was introduced whereby Mathematics and Science were taught in English to improve their English language skills. Despite an investment of more than RM1 billion on teaching and learning tools and professional development, it was shelved in 2011/12. Subsequently, SBA was introduced in Year 1 in 2011 and Secondary 1 in 2012 mainly due to students' poor performance in TIMSS and PISA studies (2003 to 2011).

In light of the changes over the last two decades, this research attempts to answer the following research questions: a) are teachers affected by the implementation of SBA have understood the philosophy of SBA?; b) are teachers confident and ready to conduct SBA?; c) Do the teachers have the competency in varying their repertoire of teaching strategies to purposes?; and d) are teachers expected to be creative in using various teaching strategies and repertoire of methods in assessing their students? Tong and Adamson (2015) opined that assessments are an important tool in facilitating student progress in learning. Hence, teachers must have high levels of confidence while assessing student performance in SBA. There is also a need to know if attending professional development SBA courses has significant relationship with teachers' readiness in conducting SBA.

In a study conducted by Alaba (2012), it was revealed that more than half of the teachers in Nigeria were not prepared for the implementation of SBA and which led to the scrapping of the policy. Another



pressing issue is whether or not teachers are contented with the teaching process. Various educational reforms have taken place in Malaysia over the last two decades that may have adversely affected teachers. Studies have shown that teachers experience exhaustion and burnout (Azlin, et. al., 2013; Azrul, 2011; Lee, 2012; Friedman, 1996; Merseth, 1992). Maslach, Leiter and Jackson (2012) explain that burnout is a general term to describe different negative consequences of work that include emotional exhaustion, depersonalisation and lack of personal accomplishment. This study was undertaken to examine the challenges faced by teachers due to the implementation of SBA. Hence, the objectives of the study are to:

- i. Investigate teachers' readiness and confidence in assessing student performance via SBA.
- ii. Examine the relationship of attending professional development courses in SBA with teachers' readiness levels.
- iii. Assess teacher's enjoyment in teaching mathematics since the implementation of SBA.

The findings of the study would help in ensuring that SBA is implemented more effectively in the Malaysian education system.

## METHODS

Structured interviews were conducted with 260 respondents who are primary school mathematics teachers who taught in Primary 1, 2 and 3 in Selangor. A total of 68% (n=195) of the respondents were females while 32% (n=65) were males. This was followed by structured interviews with eight teachers.

## RESULTS

### Research Question 1:

*What is the level of teachers' readiness in implementing SBA?*

In measuring teachers' readiness (Table 1) procedure of SBA, marking criteria, moderation system and assessment philosophy all the mean scores for the items (procedure of SBA, marking criteria, moderation system and assessment philosophy) ranged from 5.89 (SD=1.69) to 6.20 (SD=1.74) with an overall mean score of 6.10 (SD=1.65). Based on the overall mean score of 6.10, primary school teachers are not ready to conduct SBA in their classroom teaching. This low level of readiness is not accepted as a competent level for teachers. They do not understand the fundamentals of implementing SBA. Thus, students are not being assessed as per the SBA.

Table 1  
*Teacher's readiness in implementing SBA (n=260)*

	Mean	SD
I have a good understanding of the requirement of SBA	6.20	1.74
I have a good understanding of the procedure of SBA	6.19	1.72
I have a good understanding of the marking criteria of SBA	6.15	1.76
I have a good understanding of the moderation system of SBA	6.04	1.77
I have a good understanding of the underlying assessment philosophy of SBA	5.89	1.69
Overall	6.10	1.65

Scale 1= Least, 10 = Most

### Research Question 2

*What is the level of teachers' confidence in analysing students' performance in SBA?*

To analyse teachers' confidence level and ability in assessing the student's performance

using SBA, an instrument consisting of six items was utilised. Each question followed the scale that represented a choice from 1 (least) until 10 (most).

Table 2  
*Teachers' confidence levels since the implementation of SBA*

Teachers' confidence	Mean	SD
I am confident in evaluating students' mastery using bands provided (from 1 to 6 - poor to excellent) or other forms of standard benchmarking.	6.23	1.56
I can give clear explanations regarding students' achievements according to their mastery level.	6.28	1.64
I can access each student individually according to his or her needs	6.14	1.74
I can confidently plan the next teaching and learning activity in meeting the students' needs based on their feedback	6.27	1.57
I feel confident in determining students' ability and position in class according to the criteria based on their performance standards.	6.24	1.56
I feel confident judging students based on the clear criteria of evaluation according to the performance standards available.	6.19	1.62
Overall	6.21	1.52

Scale 1= Least, 10 = Most

Table 2 shows the highest mean score obtained for the item 'give clear explanations regarding students' achievement according to mastery level' (M=6.28, SD=1.64) followed by "I can confidently plan the next teaching and learning activity in

meeting the students' needs based on their feedback" (M=6.27, SD=1.57). On the other hand, the lowest level of confidence is obtained for the item 'I can access each student individually according to his or her needs' (M=6.14, SD=1.74). The other items

are in the range of 6.19 (SD=1.62) to 6.24 (SD=1.56). Based on the overall mean score of 6.21 (SD=1.52), it can be clearly seen that teachers do not have the confidence nor the ability to assess students' performance using SBA. Additionally, data indicates the teachers are ill prepared in utilising SBA philosophy to improve student learning and achievements.

**Research Question 3**

*Is there any significant relationship between the teachers' level of readiness and attending professional development courses in SBA?*

In terms of course attended, Table 3 shows 63.3% (n=157) respondents attended between 1 and 2 courses followed by 27.8% (n=69) respondents who attended between 3 and 4 courses. There were 6.0% (n=15) of respondents who had attended 5 or more courses.

In analysing the relationship between

Table 3  
*Number of related SBA courses attended since the implementation*

Courses attended	Frequency	Percentage
1-2	157	63.3
3-4	69	27.8
5-6	9	3.6
7-8	3	1.2
More Than 8	3	1.2
Total	241	100

teachers' readiness and courses attended, we divided the course attended between 1 and 2 courses, and 3 and more courses.

H<sub>0</sub>: There is no significant difference between the teacher's readiness in conducting SBA and the numbers of courses attended.

H<sub>1</sub>: Teachers attending more courses (3 and above) has a higher level of readiness in conducting SBA.

Table 4 shows that the mean scores for

Table 4  
*T-test comparing mean score between teachers' readiness and the number of courses attended*

	Courses Attended	N	Mean	SD <sub>t</sub>	df	p
Readiness	1 - 2	157	6.04	1.64	-1.622	238
	3 and above	84	6.40	1.63		

teachers attending 3 or more courses (mean=6.40, SD=1.63) is higher than those attending 1 to 2 courses (mean=6.04, SD=1.64). However, the t-test analysis indicates no significant difference [t (238) = -1.622, p=.106] between both these scores at the 0.05 level. Thus, we fail to reject the null hypothesis. This clearly indicates that although teachers attending 3 or more

related SBA courses have a higher level of readiness than their counterparts attending 1 to 2 courses, these differences are not significant. In other words, attending more professional development courses did not seem to have any effect in enhancing teachers' level of readiness in implementing SBA.

**Research Question 4:**

*What is the percentage of teachers' enjoyment in teaching mathematics since the implementation of SBA?*

Table 5 shows teachers' level of enjoyment teaching mathematics since the implementation of SBA.

Based on Table 5, 52.9% (n= 137) of

Table 5  
*Do you enjoy teaching since the implementation of SBA?*

Enjoyment	Frequency	Percentage
Yes	137	52.9
No	122	47.1
Total	259	100

respondents said that they enjoyed teaching since the implementation of SBA compared with 47.1% (n=122) who said no. This finding indicates nearly half of the teachers were discontented since the implementation of SBA. The following issues and concerns faced by the teachers were extracted during the interviews.

(Teacher No (from 1 to 12), Level (Primary 1, 2 or 3), Gender) (T2, 1, F) indicates Teacher 2, Primary One and Female

- *"I have no time to make my class more attractive"* - (T2, 1, F)
- *"Most of my time is spent on filling up forms and making online submissions"* (T3, 3, F)
- *"My time to teach has deteriorated and the additional topic in syllabus increased the subtopic made me have a*

*lot of work to do."* - (T4, 3, F)

- *"It has become difficult to see their progress in learning and their interest in specific skills"*- (T6, 3, F)
- *"SBA made teachers' feel burdened and at the same time cheating became easy and biasness was evident when awarding marks."*- (T11, 2, M)
- *"It's difficult to know the level of students' understanding. The SBA requirement can't dictate the students' understanding because teachers will ask the students to complete the task given until a correct answer is attained."*- (T12, 3, F).

**Analysis of teachers' feedback about implementation of SBA**

Research question: *If given a choice, will you like to continue or discontinue the implementation of SBA in schools?*

Table 6 describes the respondent's view, if given a choice, whether to continue or discontinue with SBA. Data shows 51.9% (n=135) respondents do not want to continue compared with 47.5% (n=122) who said yes.

The following information was extracted

Table 6  
*Teachers views to continue with the implementation of SBA*

	Frequency	Percentage
Yes	122	47.5
No	135	51.9
Total	257	100

during the interviews:

- *“Ministry of education must look back at this new implementation. Try to reduce the workload of teachers or increase the staff to help the teachers, and if that cannot be done it is best to abolish it!”- (T5, 2, M)*
- *“Parents could not accept their children ability without doing the exam...we faced lots of difficulty.....so much burden for us... rather berhentikan (stop it) sahaja seperti (like) PPSMI” - (T12, 3, F)*
- *“How to determine the level of students’ comprehension and understanding if they do not take the exam? Exams are still needed” - (T6, 3, F)*
- *“It puts both students and teachers under stress, to achieve the highest band and to carry out the assessment respectively...If given a choice, I’d decline.”*

## DISCUSSION AND CONCLUSION

The introduction of SBA system in stages by the Ministry of Education Malaysia in 2011 to evaluate students’ academic progress was in line with the implementation Standards-based Primary School Curriculum. This was part of Malaysia’s educational reform. This study was aimed at examining teachers’ views on the effectiveness of the policy since its inception.

### What is the level of teachers’ readiness

### in conducting SBA in their school since the implementation of SBA?

The findings indicate that the teachers are not ready (Mean=6.10, SD = 1.65) to conduct SBA in their schools although it was implemented since 2011. Similarly, they do not have the confidence (Mean= 6.21 SD=1.52) and ability to assess student’s performance using SBA. This suggests that the policy could fail if no measures are taken to address the issues raised by the teachers. In the Malaysian context, educational policies are often regulated at the national level by the ministry. This top down approach has often proven to be ineffective in synchronising practices and aspirations of the proposed policy, as confirmed by studies ( LeCzel & Gillies, 2006). Reflecting on the past failures of using *sempua* for teaching of math and science in English (PPSMI) indicate that more needs to be done in order to ensure that policies like SBA is successful as the latter is demanding, and labour intensive. It demands greater levels of commitment as well as cooperation from the already overstretched teachers. Teachers are already overburdened with administrative duties such as record keeping and participating in extracurricular activities. The underlying fear is that teachers may experience burnout, a phenomenon that has not been thoroughly addressed.

Findings suggest that professional development courses attended by teachers involved in this study have little impact on

their readiness to implement SBA. Some of the challenges are described as follows:

- *The courses I attended were a waste of time. We were forced to attend a half day workshop where we merely sat down and listened to a boring lecture from the instructor.* - (T4, 3, F)
- *I attended two courses in my district. We were asked to accept the policy ..... I don't believe in the SBA and there is no way we can assess students without exams.* - (T12, 3, F)
- *The courses were alright, such that in the first workshop, the instructor was good and got us involved in hands on activities to enhance our understanding.... there were lots of Q and as during the one day workshop..... However more on-going workshops are in need to grasp better knowledge of the School based Assessment.* - (T5, 2, M)
- *I understand SBA as explained by the speaker but implementing it was a different story altogether. Self-practice and discovery is crucial and works better as opposed to mere adherence to a set of fixed rules.”* - (T7, 3, M)
- *We definitely need more hands-on workshops specifically in the field of mathematics teaching. The instructor we had ventured more into the English language aspect giving more examples on it than actually focusing on mathematics teaching per se. Most of my colleagues faced the same problem in assessing students' learning in*

*mathematics...-* (T6, 3, F).

Findings also suggest a need for efficiency in conducting professional development courses. First, having a one-off or one-day work shop is ineffective especially if the policy to be implemented requires a shift from current practices; rather, it should be an on-going one over a prolonged period of time. This fundamental principal has been supported by researchers (Yoon et al, 2007; Bush, 1984) decades ago. Second, though these teachers understand the principles of SBA, they faced problems with its implementation, namely in translating theory into practice.

The reason traditional professional development is ineffective is that it does not support teachers during the implementation phase. In implementing any new policy, it is common for even experienced teachers to struggle initially (Ermeling, 2009; Joyce & Showers, 1982). If this is so, what more could be expected of new teachers? Studies reveal that it takes an average of 20 separate practices for a teacher to master a new skill, which also increases with the complexity of the skill (Joyce & Showers, 2002). Bush (1984) and Truesdale (2003) (as cited in McCrary, 2011) confirmed that when a skill is merely described, only 10 percent of participants can translate the new knowledge to practice; however, when teachers are coached through the phase of implementation, 95 percent could transfer the target skills. Thus, support and encouragement could be extended to an optimum level of 50 to 80 hours

of instruction, practice, and coaching (Banilower, 2002; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Hence, teachers could be provided the opportunity to master the necessary skills at the initial stages. Clearly, this could also boost their confidence and readiness in class which this research showed they lacked. In short, the current implementation of professional development courses in enhancing teachers practices definitely need to be reassessed.

Another issue that must be addressed is teacher burnout. Nearly half (47.1%) of the respondents have shown signs of discontent in teaching since the implementation of the SBA and more than half (51.9%) indicated that they disapproved SBA. These are signs of gradual burnout (Shaheen, & Mahmood, 2015; Skaalvik, & Skaalvik, 2011; Gavish & Friedman, 2010). Hence, guidance for teachers is mandatory to begin with. Creating awareness of its importance is vital as well as to allow them to coordinate their existing and target practices. Not doing so would result in teachers using random techniques that may not be effective. Hence, policy makers are urged to assess teachers' current competency in SBA, ensure meaningful and relevant professional development courses for them to enhance their competency and create a platform for discussing changes related to SBA for knowledge management. This study strongly recommends that policy makers re-examine and address the issues of SBA or face the risk of its slow demise.

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## **Antecedents for Community to Visit Museum Negeri Sembilan, Malaysia**

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### **ABSTRACT**

The aim of this research is to examine why people visit Museum Negeri Sembilan. The 150 respondents for this research are visitors of the state's Museum. The main objective of this study is to determine the most significant factor that influence visits. Purposive sampling technique was used with questionnaire as the instrument for collecting data. In determining the relationship between the visiting behaviours, Correlation Analysis and Regression Analysis were used. Based on the findings, physical context is the main antecedent of visiting behaviour or frequency of visits. Hence, the museum needs to be upgraded and preserved namely its uniqueness, historical information and facilities to encourage more visitors.

*Keywords:* Community, museum, visiting behaviour

### **INTRODUCTION**

According to Department of Museum, Malaysia, there are approximately 150

museums in the country. There are five categories of museums: federal museum, state museum, institution or department museum, private museum and personal museum.

According to Smith (2014), there are a variety of reasons why people do not visit the museums and among them is boredom i.e. people are bored with information displays, arrangement of historical materials and the old fashioned approach of the museum. According to Kelly and Bartlett (2009), visitor look for something sociable and

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enjoyable, to meet and learn from others. Thus, it is crucial for the management of the museum and the state government to be know what influences visiting behaviour or frequency of visits in order to ensure the community understands and values the treasure on display at the museum.

Smith (2014) opined that because people are bored with displays at the museum, arrangement of historical materials and the approach by the museum, people are less attracted to visit the museum. On the one hand, government and funders look at the eligibility of grant and accountability, thus they are look at the number of visitors to justify this (Goldberg, 2001). Therefore, this study was undertaken in order to explain the antecedents that attract the community to visit the museum.

### **Museum Visitation Behaviour among Communities**

In 2007, the Smithsonian Institution published a report titled "Museum Visitation as a Leisure Time Choice" which showed that people visit the museums as part of their leisure time activity. In addition, people tend to visit the museum to seek information, as a hobby, or as part of leisure activity for their children.

According to Falk (2009), museum visitor can be categorised as explorers, facilitators, experience seekers, professional or hobbyist and recharges. The explorers are those who want to develop basic knowledge while facilitators tend to facilitate them. There is also the visitor who is seeking an experiences and to add to his collection of

memories. Some visitors visit the museum to enhance knowledge of a collection and also as a hobby. Museums also attract visitors who are looking for relaxation during the weekend. They tend to seek an emotional or spiritual experience.

According to Museum Association (2009), people who visit museums throughout the United Kingdom (UK) are doing so because there is no admission fee. There was an increase of 13% in 2009 in visitor numbers compared to 2008 (Museum Association, 2009). In the United States, a programme called Sensory Morning provided opportunity to people with sensory-based need to enter Walters Art Museum in Washington D.C. (Sinell, 2016). As the funders and policy makers are aware that heritage, culture and ancient wealth must be preserved for the new generations, measures were adopted to attract the public to visit Intrepid Sea, Air and Space Museum. From the literature, it is clear visits to the museum is encouraged as appreciation of the particular country's national heritage and ancient culture and as a learning experience for children and adults alike.

### **METHODS**

This is a case study of the state museum in Negeri Sembilan with Cross-sectional survey design was used to find out visiting behaviour or frequency of visits among 150 respondents. Non-probability sampling frame and purposive sampling technique was used to calculate the confidence intervals for statistical analysis Trochim (2000).

Data was collected using questionnaires which consisted of two parts: the first part is on demographic characteristics, while the second part was on the factors attract visitors to the museum. Questionnaires were distributed manually.

**RESULTS AND DISCUSSION**

Table 1  
*Profile of respondents*

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	61	40.7	40.7	40.7
Female	89	59.3	59.3	100.0

N: 150

Table 1 shows female respondents (59.3%) outnumbered the males. Thus, this would indicate that the museum attracts more females visitors than males.

Table 2  
*Normality test*

Variables	Skewness	Kurtosis
Visiting Behaviour (Dependent Variable)	-0.333	-0.464
Physical Context	0.099	-0.262
Museum Management	-0.259	-0.385
Personal Motivation	-0.783	0.745

N: 150

Normality test was conducted to ensure data is normally distributed. This study used a numerical measure known as skewness and kurtosis. Normal distribution of skewness and kurtosis is zero and the range of distribution is between -2 to +2. Table 2

shows the value of skewness and kurtosis for each of the variables which meets the assumption that the data is normally distributed.

Table 3  
*Pearson correlation analysis*

	1	2	3	4
Behaviour	-			
Physical	.556**	-		
Management	.422**	.745**	-	
Personal	.411**	.591**	.671**	-

\*\*sig p<0.01

N: 150

Data was analysed to show the relationship between physical context and the visiting behaviour or frequency of visits. Table 3 shows that the value of  $r=0.556$ ,  $p<0.01$ . The p value which is 0.00 indicates that there is significance relationship between physical context and visiting behaviour or frequency of visits. The r value shows that there is moderate positive relationship between the physical context and visiting behaviour. The physical appearance of museums can affect the visitor’s decision to walk into a museum (Falk & Dierking, 2012). Therefore, data shows physical appearance has an impact on the decision to visit Museum of Negeri Sembilan. The physical context includes architecture of the building and museum displays such as artefacts and relics.

Studies have shown that people can learn better when they feel safe in an environment where they know what is expected of them (Katz & National Science Teachers Association, 2001). Hence, the

museum environment must be secure to ensure visitors feel comfortable to experience learning. Thus, the power of physical appearance, and in this context the museum, cannot be underestimated. Despain and Acosta (2013) calls the process of learning through bodily experience kinaesthetic. This concept can be applied to those who visit the museum in order to learn something new and experience history.

Data was also analysed to examine the relationship between the museum management and frequency of visits (Table 3). The result shows that the value of  $r=0.422$ ,  $p<0.01$ . Thus, there is moderate positive relationship between museum management and frequency of visits. According to Saxena (2009), management refers to a group of people who direct and control an organisation for the purpose of achieving its goals. According to Lord, Lord, and Martin (2012) cultural tourism has been identified as a growing sector of the tourism industry. Therefore, museums can be an important tourist destination and thus, efficiency and effectiveness of the museum administration are important. Some people give a good rating to the museum for its hospitality. In terms of social aspect, the museum should know how to attract visitors through their services such as hotel accommodation.

The relationship between personal motivation and visiting behaviour showed  $r=0.411$ ,  $p<0.01$  with the significant value at 0.00. Thus, there is moderate positive relationship between the variables. Museum is a place where people come to find

predictable and specific experience (Falk & Dierking, 2002). People or visitors expect a memorable experience which encourages revisits. Falk and Dierking (2002) opined there is a connection s between the physical context and personal motivation in terms of expectations.

According to Woolfolk (2001), there are internal motivations and expectations when visiting the museum. Museum is a place where people have social and intellectual interactions, a source of inspiration, relaxation and to gain knowledge.

Table 4  
*Regression analysis*

Variables	Beta
Physical context	.514**
Management	-.061
Personal Motivation	.147
R <sup>2</sup>	.32
F	23.01
sig	0.000
Durbin Watson	1.76

Dependant variable: Visiting behaviour  
\*\*sig  $p<0.01$   
N: 150

Table 4 shows the regression analysis to determine the most influential antecedent or frequency of visits to museum Negeri Sembilan. All the assumptions for regression analysis were fulfilled. There is no issue of multicollinearity as the value of Tolerance is below 10 which is consistent with Tabachnick and Fidell (2001) and the value of Variant Inflation Factor, is below 5 (Rogerson, 2001) where the value of Durbin

Watson is between 1 and 4 and is acceptable (Field, 2009).

The Mahalanobis value for regression analysis show that there is no statistic which above the Chi square critical value of 13.8. Thus, the assumptions of regression analysis are not violated. However, the value of R square for this study is quite low which only 32, equivalent to 32%. Therefore, when explaining museum attraction, specifically for Museum Negeri Sembilan, the framework which include the physical context, management and personal motivation is weak.

From Table 4, the most significant variable that influences visiting behaviour is physical context, (Beta=0.514,  $p < 0.001$ ) followed by personal motivation, (Beta=0.147,  $p > 0.001$ ) and museum management, (Beta= -0.061,  $p > 0.001$ ).

The design of the museum that includes its architecture is important (Macmillan, 2004). The visitors are influenced by the uniqueness of the building and which appeals to their sentiment. Museums are known to be the drivers of social and economic regeneration (Macleod, 2005). The design of the museum enables people to move around easily (Falk & Dierking, 2012). Spaciousness and comfort are important. Additionally, the idea behind exhibition is to 'display' information rather than to show off a library of books (Aslib, 2014). Thus, design and architecture of the museum are one of the factors that will attract visitors to the museum.

This means the museum is a place that can bring people together and in turn can contribute to the increase in revenue for the management.

Museum facilities are vital to make people feel comfortable. The activities of a museum drive its needs via facilities (Lord et al., 2012). It means that the facilities must be well planned and organised. Providing space to sit and talk, for example, are important (Falk & Dierking, 2012). Visitors look for a relaxed environment and to enjoy the ambience y.

## CONCLUSION

This study examined the factors which attracted people to visit museums. Findings show that people are visit the museum because of its physical appearance in terms of its architecture, facilities, interior and external design, the efficiency of the museum management and personal motivation. The correlation analysis show that physical, management and personal motivation positively affect visiting behaviour or frequency of visits while regression analysis showed tangible views in the museum is the main determinant for visits to Museum Negeri Sembilan. Additionally, culture and identity are important aspects whereby the younger generation by visiting the museum can learn something about the nation's past. Thus, hopefully this study will help educators develop student interest to visit the museum. The findings of this study are also useful for the management of museum

to improve its services taking advantage of cultural tourism.

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## Argumentative Indicators in SopoBlogs

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### ABSTRACT

There is a new form of communication: blogging and microblogging. One reason blogs are accepted widely is because they allow opinions to be expressed freely, issues to be discussed as well as to be argued convincingly. It satisfies the public's need to voice out their opinions. Yet, some of these opinions have limitations in terms of being expressed because of the absence of indicators. The present study is a discourse analysis of the structure of argumentation of selected SopoBlogs (social-political blogs). Its objective is to analyse the linguistic aspects of the blog, in particular, the use of indicators in the presentation of each stage of argumentation. The analysis is facilitated by the use of pragma-dialectical theory. The study reveals that bloggers do not find it imperative to use argumentative indicators in their blogs. Thus, affecting the flow of argumentations which in turn impact effectiveness.

*Keywords:* Argumentative indicators, blog post, SopoBlogs, standpoints

### INTRODUCTION

Weblogs are a tool of communication across borders as well as cultures. Blogging requires the blogger to be knowledgeable in the subject matter with a good grasp of

the language and have excellent productive skills (Nowson, 2006; Crystal, 2011; Mustapha & Su Wei, 2009). Arguments need to be presented clearly in this challenging and pervasive platform. This is because standpoints that are not clearly presented, reflecting cultural logic system, may be misunderstood by cultural outsiders.

According to Jones (2012), language is ambiguous and reflective of the diverse social group, in this case, the borderless social group that bloggers belong to. Thus, to avoid ambiguity, indicators as suggested by (Van Eemeren, Houtlessler, Snoeck,

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& Henkemans, 2010) serve to fulfil this need for bloggers to present a clearly constructed argument. As standpoints serve as keystones in argument, they should be used strategically. A well-structured argumentation laced with indicators at every stage, be it face-to-face, written or computer-mediated, should help the audience or readers understand the argument with ease. Writing an argument in a blog that reaches a global readership empowers bloggers to voice opinions or assert beliefs. Constructing a critical and clear argument is good and can achieve greater impact in persuading the public on a particular issue. This is because the public may be persuaded to believe or even be misguided through the use of a well-structured argumentation that is persuasive and logical.

Argumentation is the art of expressing opinions with the intention to convince or persuade listeners or readers to accept the particular viewpoint. One recommended strategy is to use indicators in presenting the argument. Words or expression such as *'In my opinion, I believe'* are simple indicators that are needed as underpinnings to an argument. The use of these indicators helps to provide signposts for every stage of the argumentation. According to Van Eemeren et al. (2010), argumentative indicators reinforce the standpoint of an argument, serving as pointers to claims in an argument and help express those claims more precisely (Grovier, 2005; Van Eemeren et al., 2010). In addition, Zarefsky (2005) claimed that argumentative indicators

are strategic resource that should be used effectively.

Constructing an argument is an art that can be learned and improved in order to ensure opinions are expressed without any misunderstanding or misinterpretation on the part of the readers. Van Eemeren, Grootendorst and Henkemans (2002) suggested four stages of argumentation. The first is *confrontation stage* where standpoints or claims are lodged. This is followed by an *opening stage* where discussions are initiated while the next stage is the *argumentation stage* where justifications are presented. The final stage is the *conclusion* where results of the discussion are established or reinforced. Indicators help to bridge the gap between a claim and a standpoint. Some of the indicators as suggested by Van Eemeren et al. (2010) are shown in Table 1.

Malaysia has many blog directories where blogs are classified into different categories. The blogs discussed in the present study were taken from the Malaysian Blogger Directory which encompasses business, computer, and entertainment themes. Socio-political (SopoBlog) blogs, which was one of the categories in the directory was selected as it provided a platform to discuss political as well as social issues. The discussions in such blogs are mostly news-driven which allow bloggers to make personal remarks or comments that are of interest which can be political, personal and monetary (Syed Abdullah Idid & Khaizuran, 2010).

Blogs as a source of critical news were only taken seriously after September

Table 1  
Sample of indicators

Indicators of Confrontation	Indicators of Opening	Indicators of Argumentation	Indicators of Conclusion
<b>Weak assertive</b> <i>I believe that</i> <i>I find that</i> <b>Strong assertive</b> <i>I am sure/ certain that</i> <i>I am convinced that</i> <b>Semi assertive</b> <i>I know that</i>	Any Indicators of starting point of discussion (movement)	<b>Clues for analogy argumentation</b> <i>Y is true of X, because Y is true of Z</i> <i>And Z is comparable to X, X can be compared to Z</i> <b>Rule of justice</b> <i>X must be treated like Z</i> <b>Indicators of symptomatic relationship</b> <i>is in the nature (arg)</i> <i>is by nature (arg)</i> <i>as well as the fact that,</i> <i>in addition to the fact that, on top of that</i>	<i>so, thus, hence, therefore, consequently, in short</i> <i>I stand by my opinion / standpoint/ point of view that</i> <i>I stick to my opinion/ standpoint/point of view that</i> <i>I contend that, I still think that, I'm still right that, I still insist/ maintain that</i>

Source: (Van Eemeren et al., 2010)

11th which prompted the emergence of warblogs as well as poliblogs (Hewitt, 2006). Blogs have also gained immense popularity and influence, and are rapidly taking over traditional journalism. Soon, netizens may regard them as mainstream media. According to Myers (2011), there are many evidences for this: Contents of blogs are often captured in conventional newspapers as political contributions while some popular blogs have been converted and published as books such as *Blogging to Unblock: che det.com* by Tun Mahathir Mohamad. In addition, according to Ferrell and Drezner (2005), journalists have also started blogging to express their viewpoints professionally. Locally, many politicians, including Prime Minister Dato Seri Najib Razak, have exploited blogs to communicate to their constituents.

## METHODS

Central to this research is the study of discourse. The term ‘discourse’ is often used in spoken or written form in a social setting (Wood & Kroger, 2000). Discourse can be both spoken and written while others use the term ‘discourse’ interchangeably. Crystal (2011) defines the discourse as an extension of a sentence that is stretched continuously with various applications found within.

Many of the blogs in the selected directory listed under SopoBlog were written in bilingual. For the purpose of the study, randomly selected blogs were examined based on their clear argument of issues and points. This discourse analysis was carried out on posts written by five selected bloggers. These blogs were chosen because they were not written by anonymous

writers. The five selected blogs were: *A Little Taffer’s Room (ALTR)*, *Just My Thoughts (JMT)*, *Kosong Café (KC)*, *The Rebirth of the Liberated Mind (TRLM)* and *TunkuAishah (TA)*. After careful and meticulous considerations, 11 blogposts were chosen, namely three posts from ALTR, two posts from JMT, two from KC, two from TRLM and two posts from TA.

The discourse analysis of the blogs carried out was facilitated by the model designed by Van Eemeren and Grootendorst (2004) and the argumentative indicators advocated by Van Eemeren et al. (2010). The findings are then presented based on four stages of argumentation: confrontation, opening, argumentative and conclusion.

**RESULTS AND DISCUSSION**

Table 2  
*Analysis of indicators of confrontation and opening stage*

Stages of argument		ALTR 1	ALTR 2	ALTR 3	JMT 1	JMT 2	KC 1	KC 2	TRLM 1	TRLM 2	TA 1	TA 2
Confrontation	Indicators	/	/	/	/	/	/	/	/	/	/	/
	Placement of standpoint	X 2ND	X 2ND	X 1ST	X 3RD	X 1ST	X 1ST	X 1ST	X UNEXPRESSED	X 7TH	X 1ST	X UNEXPRESSED
Opening	Challenge to defend a standpoint	/	/	/	X	X	/	X	/	X	/	X
		/	/	/	X	X	/	X	/	X	/	X
	No opening indicators	X	X	X	X	X	X	X	X	X	X	X

Table 2 presents the overall analysis of the 11 blogs in terms of the stages of argumentation and their characteristics. As mentioned earlier, Van Eemeren et al. (2002) suggested four stages of argumentation. The first stage is the confrontation stage, where a claim or standpoint is revealed to readers and some background information is provided. However, as can be seen here,

six out of 11 blogposts revealed their standpoints too early in their blogposts, which was right at the very beginning. The second stage is the *opening stage* where discussions are initiated. The next stage is the *argumentation stage* where justifications are presented while the final stage is the *concluding stage* where results of the discussion are established or reinforced.

ALTR 3, JMT2, KC1, KC2 and TA1 expressed their standpoints in the first sentence of their blogpost while ALTR1 and ALTR2 expressed theirs in the second sentence. Therefore, no background information was given prior to the standpoint. One blogger expressed his standpoint in the third sentence while another in the seventh sentence. Here, some effort in providing contextual information can be seen. The last two blogs, however, had unexpressed standpoints. A sample of unexpressed standpoint can be seen in Extract 1.

Extract 1: A sample of an unexpressed standpoint

*I would want to have a brief stop on talking political related subjects a little while and go back to what some people have said about in secondary level. Just recently someone has brought out an interesting subject about Moral studies and the nightmare that every student has to do in that subject: memory recall.*

In extract 1 (which was taken from TRLM 1), the standpoint is unexpressed and there are no clear indicators either to guide the readers. Without indicators, readers may not be able to grasp the standpoint or they may even be disheartened to continue reading as it can be challenging. In the same extract, the blogger expressed his/ her concern on moral studies which have become a subject only for memory. This can be expressed clearly with the use of strong assertive indicators such as ‘*I strongly believe*’.

Extract 2: Suggested revised standpoints for extract 1

- i. *I strongly believe* that moral studies are only about memory recall.
- ii. *I strongly disagree* that moral studies should be all about memory recall.

The revised standpoints in extract 2 clearly state the disapproval of the blogger in relation to = moral studies which was not relayed clearly in extract 1. The two revised sentences with indicators have expressed clear standpoints. At the same point, they also indicate the degree of disapproval of the blogger in this matter which may appeal to more readers.

The following analysis is on the opening stage. The opening stage is needed for the onset of an argument. This is an important stage as it sets the platform for argumentation to take place. An *opening stage* of argumentation allows a blogger to defend their standpoint in the preparation to advance argument and also dispel any arising disputes. Though it is labelled as ‘*opening*’, it is not the first stage in the argumentation. It is preceded by confrontation stage where a standpoint is made explicit. As can be seen from Table 2, five blogposts or 45.4% of the blogposts do not have any opening in their argumentation; the bloggers dive straight into the argument stage. This means that the standpoints were not defended.

What can be deduced from the above analysis is the absence of indicators in both stages of argumentation. The standpoints

were made but personal conviction as well as assertiveness were not evident there. This takes away the impact the standpoint can potentially have on the readers. The same analysis was carried out for the argument and concluding stages. Table 3 shows

the analysis of argument and concluding stages of the selected blogposts. As seen in this table, all bloggers are able to provide justifications for their arguments. However, there is a clear absence of indicators in doing so.

Table 3  
*Analysis of indicators of argumentation and concluding stages*

Stages of argument		ALTR 1	ALTR 2	ALTR 3	JMT 1	JMT 2	KC 1	KC 2	TRLM 1	TRLM 2	TA 1	TA 2
Argument	Provide a justification	/	/	/	/	/	/	/	/	/	/	/
	Indicators	X	X	X	X	X	X	X	X	X	X	X
Concluding	No conclusion					/		/				
	Reinforcement of idea								/			
	Establish result											
	No indicators	/	/	/	/				/	/	/	/
	Irrelevant conclusion						/					
	Weak conclusion	/	/	/	/					/		
Call for an action									/	/		

Another interesting observation is the concluding stage. This is the last stage of argumentation and its aims are to reinforce the main idea of the argument, to establish results or to call for an action to be taken up as a result of the argument. The conclusion is therefore, important as the blogger leaves a lingering impact in the minds of the readers. From Table 3, two blogs do not have any conclusion and the posts end abruptly while one blogpost ends with an irrelevant conclusion. The remaining eight (72.7%), has no indicators to prepare readers for a conclusion. Five (62.5%) of the eight conclusions are considered weak as these

conclusions show very poor connections to the arguments as they are written in just one or two sentences. However, three (37.5%) out of the eight (100%) conclusions achieve their purposes: one blogpost ends with a reinforcement of the idea while two calls for actions.

**CONCLUSION**

Styles of writing vary from one blogger to another based on the category of blogs or choice of words. Elements of spoken discourse that can be traced in blogs project the blogpost to be informal in nature. Bloggers may keep their tone formal or

informal, as long as the intended message comes across clearly for wider readership. In socio-political blogs, bloggers have to be assertive in presenting their standpoints and at the same time ensure their views are not misunderstood. One effective strategy is to use indicators which has not been exploited by bloggers. As can be seen, for each stage of the argumentation, none of the bloggers use indicators in providing landmarks. Van Eemeren et al. (2010) suggested a comprehensive list of indicators that could be used at each stage. However, none could be traced here. These indicators are signposts for readers to stay on track and follow the argument. In some cases, the use of indicators provide coherence in thoughts and organisation of the argument, thus, making it an easy read. Often, in the heat of an argument, one can get distracted, lose focus or get lost in the elaboration. Clear indicators help to bring the focus back into the argument.

The results of the study have implications in professional communication and negotiation skills. In any form of communication, may it be negotiation or persuasion, it is pertinent to express clear and well formulated opinions. According to Grovier (2005), an opinion is a belief often expressed with low degree of confidence and in the context where it cannot be fully supported by evidence or reasons. Some may assume that indicators are insignificant, but the truth of the matter is they are essential signposts in expressing opinions. Indicators help to create direction as well as a sense of assertiveness that is greatly respected in

the midst of ‘freedom of expression’. From the perspective of education, the teaching of argumentation has to be more structured and explicit. Educators could provide a more linear and structured argumentation with indicators to sharpen the skills of argumentation so that students may present their arguments more convincingly.

### LIMITATION OF THE STUDY

This study has limitations. First, only 11 blogposts were analysed and therefore, the results of the analysis cannot be generalised. Perhaps, further research could be carried out over a longer period of time, with many more blogposts to be analysed, for a better representation for *blog nation* (Lum, 2005) or *blogistan* as termed by Cohen and Krishnamurthy (2006). Second, the blogposts were taken from blogs with profiles provided by the bloggers. The above findings may vary with anonymous bloggers as they may feel unconstrained to express their arguments. Future researchers who are interested in the linguistic analysis of blogs may carry out a longitudinal study to look into different styles of blog writing.

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## Individual Tax Compliance Decision

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### ABSTRACT

Over the past decades, research on individual tax compliance has moved its focus from the influence of deterrence to the influence of social influence mechanism such as conformity and compliance. Fundamentally, this research revolves around the idea that the behaviour and attitudes of an individual or a group may be affected by the behaviour of others or an individual's reference group. In line with this view, this paper discusses the influence of social mechanisms on individual taxpayers' decision making. It argues that acknowledging the influence of social network can assist in explaining tax compliance among individual taxpayers in Malaysia. This argument runs counter the standard theoretical framework of tax compliance (involving deterrence factors such as fines, penalties, and audit probabilities, and that, in turn, this nature leads them to be non-compliant by manipulating their tax returns.

*Keywords:* Compliance, conformity, social influence, social network, tax compliance

### INTRODUCTION

In recent years, there have been efforts to better understand factors that influence taxpayer behaviour. Better understanding of taxpayers' motives, attitude and choices would significantly improve voluntary

compliance as well as the efficiency of the tax administration (Walsh, 2012 & OECD, 2010). Generally, the aim beneath these efforts, tax compliance, is defined as the willingness to pay taxed by filing all required tax returns in accordance with the tax code (Kasipillai & Jabbar, 2006; James & Alley, 2002). The major areas of non-compliance in Malaysia include tax avoidance and tax evasion such as: failing to register with the tax authority by any potential taxpayers, failure to submit a tax return based on due date, incorrect declaration or assessment

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of tax liability in the submitted tax return, and non-payment or partial payment of tax liability after the due date (Inland Revenue Board of Malaysia, 2015).

Thus, in 2013, Inland Revenue Board of Malaysia (IRBM) introduced strict punishment for non-compliance, including harsh penalties for underreporting, late submission, late payment, and criminal prosecution against non-filers of tax returns, meaning the IRBM can now detain tax evaders. This shift from treating non-compliance as a civil to a criminal offence demonstrates the seriousness with which it is now greeted, and attempts to address an issue: tax evasion or underreporting which reduces the state's revenues.

### **THE LOOPHOLES**

The taxation assessment system from which these issues arise was introduced in 1984, in West Malaysia, then later in Sabah, in 1957, and Sarawak, in 1961. This system shifted from traditional assessment to modern assessment; the former is known as the Official-Assessment System (OAS) and the latter the Self-Assessment System (SAS). Under OAS, taxpayers were not required to have knowledge on how to compute their own payable tax: taxpayers received their annual tax returns from IRBM and were required to declare all the necessary information pertaining to their income and expenses for that particular year of assessment. In short, the onus was on the tax assessors in comprehending, interpreting and appropriately applying the relevant tax law.

However, the rate of returns filed by taxpayers was unsatisfactory (Shanmugam 2003; Mottiakavandar, Ramayah, Haron, & Jili, 2003; IRBM, 2002) resulting in delays in revenue collections as well as loss of revenue. With these problems further aggravated by the inability of tax assessors (IRBM) to finalise assessments within the stipulated timeframe (Shanmugam, 2003), the introduction of Self-Assessment System (SAS) by the IRBM between 2001 and 2004 - for companies and individuals was designed to reduce the problematic administrative burden of the state.

Operating within the SAS system, taxpayers are required to disclose their taxable income honestly, reporting appropriately and paying taxes in a timely manner. However, with there is a tendency among taxpayers to be dishonest, because they can underreport their tax liability (Mohd Rizal, 2010; Walpole, 2009) and indeed some taxpayers began manipulating their tax returns and underreporting their incomes (Hansford & Hasseldine, 2003; James, 1996). These forms of non-compliance then were made accessible by a significant shift in taxpayer responsibility, with emphasis now on voluntary compliance. Even though SAS was introduced by the government to collect tax for the nation at minimum cost, to improve compliance, and to institute effective enforcement (Loo, 2006; IRBM, 2001; Kasipillai, 2000), clearly it also carried some negative impact in each of these areas.

## GRANTED OPPORTUNITIES

The number of non-compliant taxpayers increased by almost 10 times within two years of the implementation of SAS from 25,160 to 239,666 in 2003 and 2005 respectively. About 1.3 million potential taxpayers did not file their tax returns which caused the Malaysian government to lose approximately RM307.7 million in tax revenue due to non-compliance (Krishnamoorthy, 2006). In 2011, there were approximately 5 million individuals in Malaysia who are eligible to pay taxes, but only 1.7 million were active taxpayers (IRB chief executive officer, 2011). The rest were inactive taxpayers and contributors to tax arrears, through avoidance and evasion, and most of them are undetectable.

Some of the taxpayers claim to find the tax system too complicated perhaps due to the fact that there are various layers of tax, such as income tax and property tax. Subsequently, revenue loss due to tax evasion in 2015 was RM567,837,454.66 compared with RM391,022,171.19 in 2014.

The number of evasion cases for both years increased from 667 to 1029, and for personal income tax evasion, it was about 791 cases for 2013, 2014 and 2015 (Mohd Azizul, Mohd Yasin, Musa, & Mohd Hamzan, 2016).

## LESSONS LEARNT

Countries all around the world have been working extensively to improve their taxation system. Based on 2015 International Tax Competitiveness Index Rankings (Table 1), Estonia had the most effective tax system in the world: with private personal income tax in Estonia is 20%, the lowest among OECD countries.

New Zealand emerged second with a score of 91.8%. Based on the global trend, New Zealand improved its marginal individual income tax rate from 38% to 33% and for corporate tax from 30% to 28%. These reforms helped transform uncompetitive taxes to an efficiency of taxes.

Table 1  
2015 international tax competitiveness index rankings

Country	Overall Score	Overall Rank	Individual Taxes Rank	International Tax Rules Rank
Estonia	100.0	1	2	17
New Zealand	91.8	2	1	16
Switzerland	84.9	3	4	9
Sweden	83.2	4	21	5
Netherlands	82.0	5	6	1

Source: Tax Foundation, 2015

Based on these established best practices in taxation, Malaysia has begun to improve taxation system by incorporating an awareness of factors that influence individual taxpayers' decision to pay taxes into its system. Evidently, social influence and deterrence factors should be taken into consideration in order to tackle the current

tax loopholes. The tax rates implemented in Malaysia is relatively higher as a developing country and should take into account the taxpayer's real income as well as economic growth of the country. The personal income tax (Figure 1) in 2015 and 2016 were 25% and 28% respectively (IRBM, 2015).

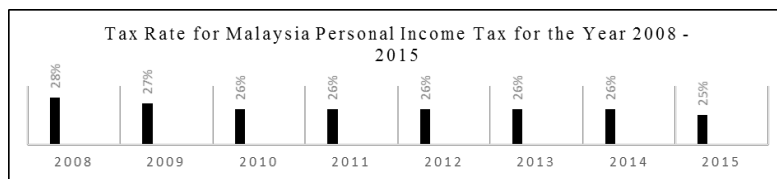


Figure 1. Tax rate for Malaysia personal income tax for the year 2008 – 2015

### TAX COMPLIANCE AND SOCIAL INFLUENCE

In 1970s and 1980s, studies on psychological driven tax compliance model not only focused on deterrence factors, but also on social norms as a tax compliance determinant. Among these are: normative expectations (Smith & Kinsey, 1987), identification with a group (Vogel, 1974), social norms and social controls (Weigel, Hessing, & Elffers, 1987). In the 1990s, interest in tax compliance behaviours (via behavioural economists) peaked thus, many experimental studies were conducted on the effects of social norms (Torgler, 2007). More recent studies have changed their focus and included more research on taxpayers' morale, social norms, social interaction, ethical values, fairness perceptions, and attitude.

A number of key behavioural and sociological questions were developed to study the effect of social influence on tax behaviour, fairness, and trust, and social norms and social influences in tax communication (Onu & Oats, 2014). The previous microeconomic approaches examined the consequences of audit probability, fines, tax rate, income level, inflation rate and developed highly sophisticated mathematical models, but they failed to incorporate many facets of taxpayers' actual behaviour. Moreover, Theory of Planned Behaviour, Rational Choice Theory, Crowding Theory, and Theory of Reasons Action have been used to study the taxpayer's intention that and behaviour. Artificial neural network analysis, ordinary least squares (OLS), Panel regression, and agent-based model

are among the methodologies used to study tax behaviour.

## **SOCIAL INFLUENCE**

Within each of these models, social influence is being measured. Social influence is a change in an individual's thought, feelings, attitudes, or behaviours resulting from communication or interaction of one individual with others, or also influenced by the majority when a large portion of an individual's referent social group holds a particular attitude (Rashotte, 2007). An individual's decisions or choices have always been influenced by those who they perceive themselves to be similar to, or see as desirable, or see as or having a knowledge in a particular field. Social influence therefore plays a significant role in predicting decision making of the taxpayer, either to comply or not comply with the tax payment (Andreoni, Erard, & Feinstein, 1998; Erard & Feinstein, 1994; Gordon 1989; Myles & Nylor, 1996).

### **Social Influence Theory**

The core proposition of social influence theory is where the behaviour and attitudes of an individual or group will be affected by the behaviour and social norms of others or an individual's reference group (Ali, Fjeldstad, & Sjursen, 2014). A research on herd behaviour in an economic situation (Banerjee, 1992) indicates that social influences may affect the compliance of individual taxpayers, in particular by affecting the perceived probability of detection. In Western countries, those who

report compliance believe that their peers and friends comply, whereas those who report cheating believe that others are also doing the same thing, cheating (Andreoni et al., 1998). Based on this theory, there are two major components that may affect compliance behaviour, namely, conformity and compliance.

**Conformity.** Taxpayers' compliance decisions are basically not simply influenced by economic deterrence such risk detection and severity of punishment, but also their personal norms. These norms alone are do not help to improve tax compliance. When an individual declares his or her opinions and behaviour within heterogeneous society, they will trade-off between being true to their own opinion and conforming to a social norm (Michaeli & Spiro, 2015). Conformity occurs when an individual conforms when he or she desires to change the behaviour according to socially acceptable standards as a result of group pressure (Myers, 2008; Cialdini & Goldstein, 2004). Generally, the fusion of identity will take place when an individual becomes fused in a particular group, and their behaviour and social identities become functionally equivalent (Swann, Seyle, Gomez, Morales, & Huici, 2009).

Conformity is assumed to be an endogenous social influence mechanism since the behaviour of others may be correlated through unobserved factors and simultaneity (Maness, Cirillo, & Dugundji, 2015). This variable is influenced by two aspects known as normative and

informational influences. Normative influence is understood as conformity based on a person's desire, to be positively accepted in a particular group through fulfilling expectations of others. This conformity requires the social approval and acceptance from the group members, and when a person does not conform to their group, subsequently they are less recognised and will be punished by the group. Normative influence basically results in public compliance where a person publicly agrees with the opinions of a group even though they privately disagree with them because they are scared of being rejected by the group.

Informational influence is defined as an influence to accept information that they obtained from another person (can be obtained by observing) as evidence about reality (Myers, 2008; Deutsch, & Gerard, 1955). When a decision is unknown and ambiguous, an individual tends to depend on others for the answer. Individual taxpayers may be influenced by informational conformity when they have been informed of some preferable features of a certain type of behaviour. At the very least, taxpayers who had been informed have differing choice perspectives compared with those who are not well informed. But, more specifically, as discussed in social networks, people are connected to each other and share their own experiences that might convince others to be a part of them and thus the social norm of honest payment will be exponentially increasing the likelihood of honest payment.

**Compliance.** In contrast with conformity, compliance is categorised as contextual or exogenous social influence (Manski, 1993). Compliance refers to a particular kind of response or agreement to a particular kind of communication or a request (Cialdini & Goldstein, 2004). This request can be either explicit (such as the command form by tax authorities in paying taxes) or implicit, for example, through advertisement or seminars held by IRBM. But in all cases, the target recognises that the involved parties (taxpayers) are being urged to respond in the desired way. To encourage compliance among taxpayers, three kinds of social influence tactics can be employed: (1) accuracy; (2) affiliation; and (3) have to be really understood.

Accuracy is important to individuals since it helps them to achieve their desired goals in the most effective and rewarding manner. The individuals' goals respond correctly to a dynamic social situation that demands an accurate perception of reality. Therefore, they need to be able to correctly interpret and react to incoming information that is perceived as significant, in this instance, compliance-seeking attempts. In term of social norms, individuals often look to gain an accurate understanding and effectively respond to social situations, especially when it comes to uncertainty. Kahan (1997) revealed that social norms have been found to influence a range of behaviours in tax evasion. Simply put, social norms are the rules that state expectations about what is right and correct behaviours in a different setting (Pratkanis, 2007).

Individuals will be given a reward if they accordingly behave as required by the authority through the opinions, advice and orders from higher authority.

Alongside accuracy, affiliations refers to the fact that humans are fundamentally motivated to create and conserve meaningful social relationship such as engaging in behaviours that others approve of. In maintaining a positive self-concept, people have a strong need in enhancing their self-concept through behaving consistently with their actions, statement, commitment, or belief (Cialdini & Trost, 1998).

### **SOCIAL NETWORK**

Each of the above social influence tactics must be filtered through social networks, and thus an understanding of what these are and how they operate is also important to encouraging compliance. People are dependent on each other and they are linked together through their relations. These relations can be friendship or partnership (Ibrahim & Chen, 2015) or collegial (working in the same organisation, or same occupational group), familial relations or social media (Maness et al., 2015), but all of these linkages can be understood as social networks that influence one's personal goal and decision. The social network plays a significant role in determining choices of individual taxpayers. The first role is, it transmits social norms from one person to another and second, the audit policy of the revenue service is not disclosed to the public (Hashimzade, Myles, Page, & Rablen, 2014). The effect of this reality is that when

two non-evaders meet, the social norm of honest payment will be increased for both parties, but when the non-evaders met evaders, the same social norm is reduced for the non-evader and increased for evader. Generally, individuals will share their own experience and receive information about the experiences of others.

Social media can be explained as the umbrella for the web-based software and services that allow users to exchange, discuss, communicate and participate in any form of social interaction via online (Ryan & Jones, 2012). In terms of tax compliance decision, social media facilitate the communication between taxpayers (either evaders or non-evaders), such as through a website or online service. The emergence of Facebook, WhatsApp, Instagram, Twitter and blogs therefore stimulated the decision making process of an individual by enabling users to communicate with each other by posting information and comments. Interestingly, the information and comments about any issues can be publicly or privately displayed and respects the privacy of the users.

With such dramatic power to generate social influence, clearly it is important to understand social networks in looking to understand individuals' tax compliance decisions. At least one effect of these networks is the creation social safety by linking an individual based on propinquity and homophily. Propinquity is where individuals prefer to be friends if they are geographically close (Feld & Carter, 1998), while homophily is the condition

where individuals tend to communicate and associate with others that they feel comfortable with and are like themselves (McPherson, Smith-Lovin, & Cook, 2001). In order to understand the social influence of social networks in a choice decision by taxpayers, it is important to address why connections are made. Kadushin (2012) revealed that there are three main motivational grounds for social networks which are: (1) social safety; (2) brokerage; and (3) status.

The brokerage allows individuals to explore a new environment by transferring of knowledge, influence, and social capital between heterogeneous societies as well as provide individuals with power and status (Manes & Cirillo, 2016). Besides, status requires a power, the reputation of an individual and comparison thereof. The sources of power can be from organisational structures and the allocation of resources such as social connections and encourage social interaction among individuals.

## CONCLUSION

To understand taxpayer compliance is challenging. The biggest problem is to search for one predominant theory of taxpayer compliance that allows predictions to be made, for producing voluntary compliance in a dynamic environment. The economic factors have shown their inconsistent effect on individual tax behaviour in paying taxes and thus they are not sufficient to explain tax compliance. Moreover, the tax compliance rate is surprisingly higher than what the standard economic model would

expect. The classical utility model of tax compliance produces weak predication of macro compliance levels.

Individual taxpayers do not consider penalties and perceived audit probability for evading, but this should go beyond deterrence and focus on social influences as well. Realistically, the social influence theory offers more guidance for tax administrators to improve voluntary compliance by establishing different strategies for different types of taxpayers. Social networks clearly play a significant part in influencing individuals' behavior since they are dependent on each other and are linked through their relations, and this enables individual to transmit social norm from one person to another. These linkages influence one's personal goal and decision, and thus open up an avenue for tax authorities to generate compliance.

The effectiveness of social influence mechanism has been questioned since tax compliance behaviour is known to be private and unobservable. Studies have shown the salient effect of social influence across countries, regions, occupational groups and economic sectors, through information received via mass media, indirect inference or through personal communication with other taxpayers, but in the context of the theories discussed, tax compliance behaviour had different objectives and various methods were used to get an accurate result. Thus, whilst to some extent, experimental studies are well suited to detect the precise mechanisms behind noncompliance, but the question remains



whether individuals behave similarly or rather differently in the laboratory and in the field. What is clear is that attitudes and behavior change after one taxpayers form a relationship with another taxpayers, and this knowledge must drive policy.

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## **Hardscape and Softscape Elements of a Malay Garden**

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### **ABSTRACT**

This research will focus on understanding the concept of a Malay Garden. The aim of this study is to understand the use of hardscape and softscape elements in a Malay garden. The objective of the study is to identify key elements of the Malay Garden via the *Residents Preference*. The findings can be a guide for researchers in the field of cultural landscape, to better understand the way of life of the Malay community in Malaysia.

*Keywords:* Cultural landscape, Malay garden concept, Malay garden, Malay landscape, Malay

### **INTRODUCTION**

Abu Dulaf, when he arrived at “Kalah” found that it had beautiful and impressive gardens which were flourishing (Wheatley, 2010). An understanding of landscape architecture is necessary, since every civilisation has its own unique landscape design concept (Zakaria, Salleh, & Rashid, 2014). According to Ninotaziz (2016), the

Malay Nusantara garden has a history dating back 1400 years and she believe the gardens were inspired by legends and folklores such as the Hikayat.

Aspects of the landscape architecture influence creativity and design (National Landscape Department, 2012). This study will examine the problems faced by the Malay community in understanding the field of landscape architecture. Referring to Booth (2011), residential sites should have a significant outdoor space such as an outdoor arrival and entry space, amusement or living space, eating or dining space, recreation space, work or storage space and garden space.

Culture elements which expresses itself in the locality, and which in turn is expressed by insertion, brands to our spaces and our

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built forms with the personality, identity and character (Waterman, 2009). According to Zakaria, Rashid and Ahmad (2016), cultural landscape is an exceptional practise for maintaining land use, by considering the

characteristics and restrictions of nature, and spiritual affiliation with the environment.

This study was conducted to understand resident perspectives on the Malay concept of a garden.

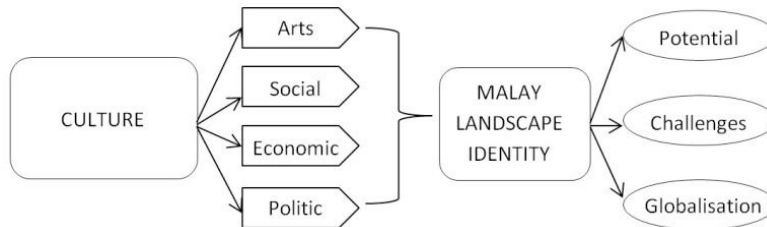


Figure 1. The Culture relationship in shaping the identity of Malay Landscape (Author, 2016)

## METHODS

Primary data were collected while conducting site visits to selected Malay homes in addition to semi in-depth interviews with the respondents. The 75 sample homes were selected randomly in five states in Peninsular Malaysia (Melaka, Johor, Terengganu, Kelantan and Perak). The criteria for selecting the states are:

- 1) Large Malay populations
- 2) A unique garden landscape

### Sample Criteria

In this study, researchers used the method of observation, and the samples fulfilled the following criteria:

- 1) Traditional Malay House
- 2) Traditional Malay Village
- 3) Still inhabited during the research
- 4) Has the character of a Malay garden

The study emphasised on four (4) key areas of landscape architecture, namely:

- 1) Analysis of softscape elements
- 2) Analysis of hardscape elements
- 3) Analysis of materials
- 4) Awareness level analysis of the Malays community.

## RESULTS

Selected samples were classified according to the age of the house:

- 1) The house built (< 1900)
- 2) The house built (circa 1901-1920)
- 3) The house built (circa 1921-1940)
- 4) The house built (circa 1941-1960)
- 5) The house built (> 1961)

The focus was also on the materials used for garden landscape.

### Sampel of Malay Traditional Houses

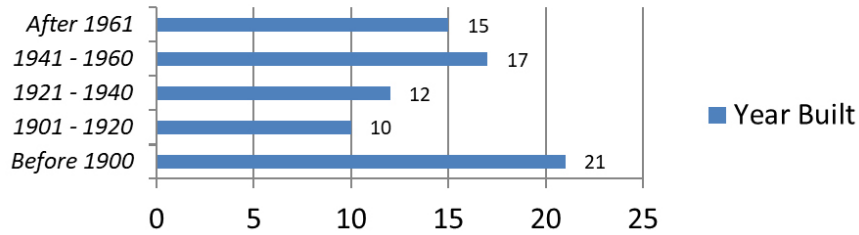


Figure 2. The number of samples in this study

### Softscape Analysis

Softscape is an analysis of plants of the types of plants that are most commonly grown

in the compound, namely plant population frequency (see Table 1).

Table 1  
Softscape analysis

No	Year house was built	List of Softscape		Percentage %
		Plant Species	No	
1	<1900	<i>Musa spp</i>	20	95.3
		<i>Nephelium lappaceum</i>	20	95.3
		<i>Cytopogoncitrat</i>	16	76.2
		<i>Citrus aurantifolia</i>	16	76.2
2	1901 – 1920	<i>Cocos nucifera</i>	7	70.0
		<i>Durio zibethinus</i>	7	70.0
		<i>Citrus aurantifolia</i>	6	60.0
		<i>Naphelium lappaceum</i>	6	60.0
3	1921 – 1940	<i>Musa spp</i>	8	66.7
		<i>Codieum variegatum</i>	7	58.3
		<i>Cocos nucifera</i>	5	41.7
		<i>Bougainvillea spp</i>	4	33.3
4	1941 - 1960	<i>Cocos nucifera</i>	8	47.0
		<i>Musa spp</i>	8	47.0
		<i>Nephelium lappaceum</i>	7	41.2
		<i>Bougainvillea spp</i>	7	41.2
5	1961 – 1980	<i>Cocos nucifera</i>	10	66.7
		<i>Bougainvillea spp</i>	8	53.3
		<i>Cymbopogen citratus</i>	7	46.7
		<i>Naphelium lapaceum</i>	7	46.7

Source: Site visit (2015)

The results of the survey found that many plant species are grown around the compound. A total of 21 species were examined and scoring was based on plant population frequency (i.e. the most frequently planted species) according to the age of the house (as categorised above). The study analysed the four most common plants grown For houses built before 1900, the highest score was for *Musa spp.* and *Nepheium lappaceum*, 95.3% (n=20), *Citrus aurantifolia* and *Cybopogen citrates* scored 76.2% (n=16) of the 21 species studied in this group.

For houses built between 1901 and 1920, the highest score was for *Cocos nucifera* and *Durio zibethinus* - 70.0% (n = 7). *Citrus aurantifolia* and *Naphelium lappaceum* scored 60.0% (n = 6) for 10 species studied. For houses built between 1941 and 1960, the highest score was *Musa spp.*, 66.7% (n = 8) followed by *Codieum variegatum* acquiring 58.3% (n=7). The third most common type of species planted was *Cocos nucifera*, 41.7% (n=5) and the last, *Bougainvillea spp.*, which scored 33.3% (n=4) from the 12 species studied.

For the houses built from 1941 - 1960, the highest score was *Cocos nucifera* and *Musa spp.*, 47% (n = 6). *Nepheium lappaceum* and *Bougainvillea spp.*, 41.2% (n=7) from 30 species studied.

For houses that were built after 1961, the highest score was *Cocos nucifera*, 66.7% (n = 10). *Bougainvillea spp* planting frequency was 53.3% (n=8), while *Nepheium lappaceum* and *Cymbopogen citratus* scored 46.7% (n=7) from 15 species studied.

In conclusion, the most frequent plant grown was *Nepheium lappaceum*, 54.7% (n=41) followed by *Musa spp.*, 48.0% (n=36), and the third is *Cocos nucifera* with a frequency of 40.0% (n=30) of the total sample.

**Hardscape Analysis**

The second part analyses the Hardscape elements by focusing on the garden or outdoor furniture of the selected houses. It identifies the most frequent type of garden or outdoor furniture (Table 2).

Table 2  
Hardscape analysis

No	Year house was built	List of Hardscape		Percentage %
		Type of Hardscape	No	
1	<1900	Dumpsite	16	76.2
		Well	14	66.7
		Flowerpot	13	61.9
		Suspension	12	57.1
2	1901 – 1920	Flowerpot	9	90.0
		Water vessel	6	60.0



Table 2 (continue)

		Bench	6	60.0
		Outdoor Toilet	5	50.0
3	1921 – 1940	Flowerpot	11	91.7
		Bench	9	75.0
		Well	5	41.7
		Water Vessel	4	33.3
4	1941 - 1960	Flower pot	14	82.4
		Bench	8	47.1
		Water Vessel	8	47.1
		Well	6	35.3
5	1961 – 1980	Flower pot	13	86.7
		Bench	10	66.7
		Water Vessel	7	46.7
		Fence	5	33.3

Source: Site visit (2015)

The results of the survey showed various types of garden furniture in the compound of the samples. Four (4) most frequent or common outdoor furniture according to the age of the house were identified and scored. For houses built before 1900, garden furniture 76.2% (n=16); houses with 'well' scored 66.7% (n=14) and those with 'flower pot' scored 61.9% (n=13), and those 'suspension' had a percentage frequency of 57.1% (n=12) for 21 samples studied.

For the houses built from 1900 to 1920, the highest frequency score for garden furniture is 'flower pot', 90.0% (n=9), whereas 'water vessel' and 'bench' showed the same frequency percentage of 60.0% (n=6) followed by 'outdoor toilet', 50% (n=5) for 10 samples studied.

The houses built between 1921 and 1940, the highest frequency score for garden is 'flower pot', 91.7% (n=11), followed by 'bench', 75.0% (n=9). The 'well', had

41.7% (n=5) frequency score while 'water vessel' 33.3% (n=4) of the 12 samples studied.

For houses built from 1941 to 1960, the highest frequency for outdoor garden is 'flower pot', which obtained the percentage frequency of 82.4% (n=14). 'Water vessel' and the 'bench' had the same score, 47.1% (n=8), and 'well' 35.3% (n=6) for 17 samples studied.

For houses built after 1961, the highest frequency score is 'flower pot', 86.7% (n=13). The 'bench' had a percentage frequency of 66.7% (n = 10), while the 'water vessel' 46.7% (n=7) and 'fence' showed frequency percentage of 33.3% (n=5) for 15 samples studied.

In conclusion, garden furniture that is more frequently seen in the samples is 'flower pot', 80.0% (n=60), followed by 'well', 33.3% (n=25), and the third is 'bench' with a percentage frequency of

32% (n=24). According to Zakaria, Rashid and Ahmad (2016b), the arrangement of garden furniture is generally in accordance with the philosophy of the ancient Malays, for example, ‘guri’ (water container for washing the feet), positioned at the entrance of the house.

**Materials Analysis**

This section analyses the materials that are used to make outdoor furniture. It identifies the kind of material that is most frequently used to make garden furniture (See Table 3).

Table 3  
*Materials analysis*

No	Year house was built	Type of Material		Percentage %
			No	
1	<1900	Concrete	18	85.7
		Ceramic	17	80.9
		Wood	17	80.9
		Steel	9	42.8
2	1901 – 1920	Concrete	7	70.0
		Ceramic	4	40.0
		Wood	3	30.0
		Steel	1	10.0
3	1921 – 1940	Concrete	9	75.0
		Ceramic	8	66.7
		Wood	3	25.0
		Steel	1	8.3
4	1941 - 1960	Concrete	16	94.1
		Ceramic	8	47.1
		Wood	6	35.3
		Steel	2	11.8
5	1961 – 1980	Concrete	15	100.0
		Ceramic	15	100.0
		Wood	8	53.3
		Steel	6	40.0

Source: Site visit (2015)

There are five types of material used for building garden furniture.

For houses that were built before 1900, the highest frequency scores for material is ‘concrete’, 85.7% (n=18), followed by ‘ceramic’ and ‘wood’ which had the same

frequency at 80.9% (n=17), while ‘steel’ scored 4.8% (n = 9) of the 21 samples studied.

Houses built from 1901 to 1920, the most frequently used material for outdoor furniture is ‘ceramic’, 70.0% (n=7), followed

by 'wood', 40.0% (n=4). 'Concrete' scored 30.0% (n=3) whereas 'steel' had frequency percentages of 10.0% (n=1) of the 10 samples which were studied.

Most garden furniture in the houses built from 1921 to 1940 had was made of 'ceramic', with a frequency of 75.0% (n=9), followed by 'wood', 66.7% (n=8). The frequency for 'concrete' was 25.0% (n=3), and 'steel' 11.8% (n=1) of the 12 samples studied.

As for houses built from 1941 to 1960, the highest frequency score for materials used to make garden furniture was 'ceramic', 94.1% (n=16), followed by 'concrete' with a percentage frequency of 47.1% (n=8). 'Wood' scored 35.3% (n=6) and 'steel' had a frequency percentage of 11.8% (n=2) of the 17 samples studied.

As for houses built after 1961, the highest frequency score for garden furniture material is 'ceramic', 85.3% (n=64),

followed by 'wood' that showed percentage frequency of 66.7% (n = 50). 'Concrete' scored 53.3% (n=8) whereas 'steel' 25.3% (n=40) from 44 samples in this group.

**The Level of Malay Community Awareness about the Concept of Malay Garden**

In this study, researchers obtained feedback from respondents about their awareness of the existence of Malay garden elements and concepts using a *Likert Scale* to measure their responses:

**An Understanding of the Malay Garden.**

Data showed homeowners had poor understanding of the concept of Malay garden. Most of the respondents had never been exposed to the concept of landscape architecture. The knowledge on gardening was inherited. (Refer to Figure 3)

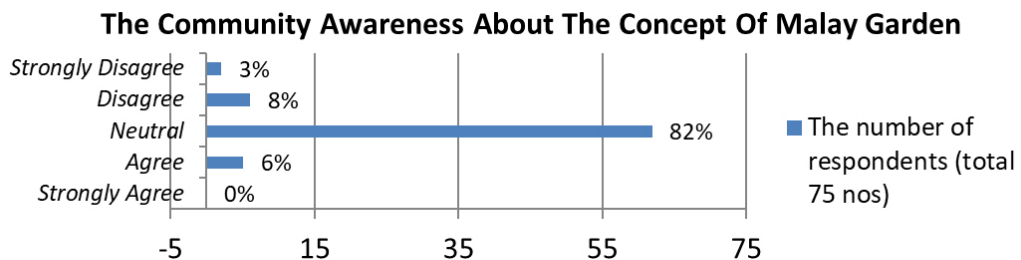


Figure 3. Community awareness about the concept of Malay Garden

**The Malay Garden Future.** Homeowner's opinion was sought about the future of the Malay garden. Data showed that the respondents did not believe the concept of Malay garden will be successfully

developed in the future as there were no active campaigns nor sound explanations from the relevant authorities on this (Refer to Figure 4).

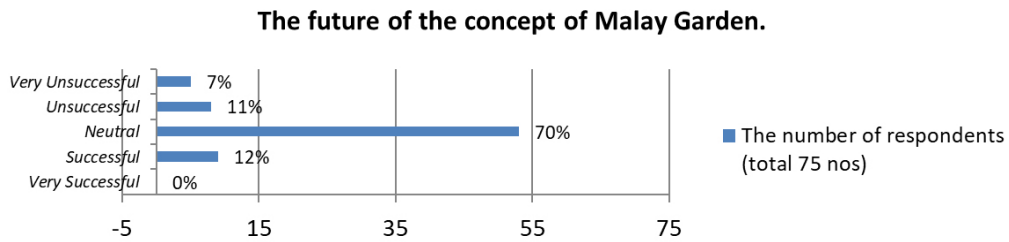


Figure 4. Respondents' opinions about the future of the concept of Malay Garden

Thus, the level of awareness on the concept is very poor. This is due to lack of publicity on the way of life of the Malay community in the village. Thus, the relevant authority needs to promote this concept of more seriously and actively in the future.

## DISCUSSION

### Community Identity

As a responsible member of society, we need to maintain the identity of the nation and should feature it without any sense of shame. Among the methods, we can make is by promoting it through local films. The old Malay movies show us a lot about Malay community life, such as the traditional Malay garden characters, the past culture, environment and some movies also depicted the way of life of the Malays in the olden days (Zakaria, Salleh, & Abd. Rashid, 2015).

### Culture

Introducing and preserving the Malay culture is a priority. With their culture, it will be recognized civilized nation, and without it, people will continue to borrow other people the way of life without a clear

direction. The existence of a culture that must have a function and cause. According to Zakaria, Salleh and Rashid (2013), in the setting of interior and exterior space associations, the placement of the arch, water tank, pond, flower pots and guri on the front compound serves as a sense of welcoming before ascending to the house. According to Ninotaziz (2016), in *kampung* scenario, throughout the preparation of meals (especially for lunch), younger kids would be told to run downstairs to the garden to get lemongrass (*Cymbopogon citratus*), lime (*Citrus microcarpa* and *Citrus hystrix*), pandan leaves (*Pandanus amaryllifolius*) or other herb plants before they disappear into the nearby woods to play or go fruit picking.

### Philosophy

The old Malays have a multiplicity of philosophies, taboos and customs that are endure relevant to our practice today. The old Malay philosophy teaches us about discipline, tolerance, respect for parents and also know the taboos. This is because the philosophy of the Malay is closely related to the way of life of Muslims. The Malay landscape, perhaps will not be gone if the community, tranquil obeys to the philosophy

of Islam that stresses cleanliness in daily life (Zakaria et al., 2015).

### Architectural Features

The traditional architecture features strengthen the bond between the interior and exterior of the house. For the Malays, the house is the extremely privacy, and it cannot be entered without being invited, however, the external space is for socializing activity. From a psychological viewpoint, the house can offer a variation of instinctive desires, such as generous a sense of safety, amity, harmony, a place of internal peace and numerous others (Nasir & Wan Teh, 1994).

The National Landscape Department (NLD) in 1997 tried to introduce the concept of Malaysian Garden. Unfortunately, after almost 20 years, this concept has not been implemented. This is because the Malaysian Garden (*Malay Garden + China Garden + Indian Garden*) introduced as way to promote assimilation and integration and to establish parks that can be used by all races, but the process of merging the concepts into one seems quite impossible. It's like not to be associated because all concept has its own specialty, specifically when related to philosophy (religion as a core of both concepts) (Ismail, 1997).

### CONCLUSION

During this study, researchers took into account a number of factors that can be a challenge for the concept of a Malay garden. There are tangible and intangible factors that researchers recognized as a counterweight to the development this concept in the future.

The study provided important information that can be used to realise the concept of Malay garden. Softscape and hardscape elements The Malay garden concept is based on the culture of Malays However, no consensus has been reached on how to make this concept more systematic and practical. This study showed there is ack of awareness and knowledge about aesthetic values.

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## **Synthesising the Literature on the Benefits and Impact of Group Awareness in Group Work**

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### **ABSTRACT**

Group awareness among the members has been a concern to researchers studying the group. This paper examines benefits and impact of group awareness to members of the group work based on empirical evidence from literature on the following topics, such as Computer Supported Cooperative Work (CSCW), Computer Supported Cooperative Learning (CSCL), Human Computer Interaction (HCI), Groupware, Information Systems, Psychology, Management and Organizational Science. Systematic Literature Review (SLR) is the method employed for such review. This study contributes knowledge on group awareness and its benefits to the group by synthesising literature on group awareness for the group. Group awareness benefits the group since it enhances group performance – for instance it reduces time wastage, improves quality of output, and increases coordination.

*Keywords:* Collaboration, coordination, group awareness, group work, systematic literature review

### **INTRODUCTION**

There are multiple definitions of ‘group’ or also known as ‘team’ in the literature (Tran, Yang & Raikundalia, 2006; Tajfel,

1982). This research adopts Hackman’s (1987) definition. ‘Group’ is defined as “*a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems and which manage their relationships across organizational boundaries*” (Hackman, 1987). Group awareness refers to an “*understanding of activity of others, which provides a context for your own activity*” (Dourish & Bellotti,

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1992). These definitions reflect that an individual or also known as a group member requires information obtained from other entities (e.g. other group members, task and environment) which can help to develop understanding and increase the knowledge of the task.

In a group, it is easy to be aware of and understand duties of others if it involves a small group and the tasks are simple (Araújo & Bourbousson, 2016). It however becomes complicated as the group expands in terms of its membership (Espinosa, Slaughter, Kraut, & Herbsleb, 2007). Distance makes it more difficult for members to coordinate their work (Chabanloo, Abyaneh, Kamangar, & Razavi, 2011; Herbsleb, Mockus, Finholt & Grinter, 2001). It affects ability of the members to coordinate and communicate especially when team interaction tends to be less spontaneous and frequent (Kraut, 2003). Coordination becomes harder as the number and relatedness of the task increase (Espinosa et al., 2007) and there are mutual dependencies between each task (Malone & Crowston, 1994; Nguyen-Duc, Cruzes, & Conradi, 2015).

Software development is collaborative in nature. Developers need to continuously coordinate and communicate to be aware of each other's work, since each task often impacts the work of the other. Group awareness can help to reduce the coordination and communication complexities more effectively in software development. Thus, group awareness could provide up-to-date knowledge which can help its members synchronise their tasks with other members

(Endsley, 1995; Bourbousson, R'Kiouak, & Eccles, 2015).

Numerous empirical evidences show the benefits and impact of group awareness to group work. However, to the best of the authors' knowledge, little initiative is taken to synthesise the empirical evidences. That has motivated the present authors to perform Systematic Literature Review (SLR) to synthesise the empirical evidences. This study contributes confirms on the benefits of group awareness for group work.

The following section of this paper discusses methodology followed by a discussion of the findings before the paper is concluded.

## METHODS

### Systematic Literature Review (SLR)

We carried out a Systematic Literature Review (SLR) which is an approach of identifying, evaluating, and interpreting all available research relevant to a particular research question (Kitchenham, 2004). The research question:

**RQ1:** *What empirical evidences exist on the benefits and impact of group awareness in group work?*

We performed an extensive search of the following electronic databases by using the keywords identified in Table 1. The keywords were categorised in two: Category A comprises keyword which is related to "Group Awareness", while category B consists of keyword which is interrelated with "Group Work". Both



categories were combined using the Boolean “AND” expression: (*A1 OR A2 OR A3 OR A4*) AND (*B1 OR B2*). The databases searched were:

- IEEE Xplore (<http://ieeexplore.ieee.org>)
- ACM Digital Library (<http://www.portal.acm.org/dl.cfm>)
- Elsevier ScienceDirect (<http://www.sciencedirect.com>)
- Compendex EI (<http://www.engineeringvillage2.org>)
- EBSCOhost (<http://www.ebscohost.com/>)
- ProQuest Research Library (<http://www.proquest.com>)
- INSPEC (<http://www.engineeringvillage2.org>)
- Google Scholar (<http://scholar.google.com>)
- AIS eLibrary (<http://aisel.aisnet.org>).

The papers were examined based on their relevance to the research questions. First, we analysed the title, abstract and keywords. In some cases, we read the entire paper to determine its relevancy. The papers were classified into two categories based on inclusion and exclusion criteria. The following inclusion (I) and exclusion (E) criteria were applied:

- I1.* Papers should directly relate to group awareness and the studies should focus as software development.
- E2.* Posters, panels, abstracts, presentations and article summaries.

After the screening process, the papers were classified according to research method strategy (i.e. experiment, case study, experience report, observational study, systematic review), data collection methods (i.e. interview, observation, questionnaire, multiple data collection methods), type of data analysis (i.e. qualitative, quantitative or both).

Table 1  
*Keywords used in this study*

Category	Keywords
A. Group awareness	A1- Group awareness A2-Workspace awareness A3- Team awareness A4- Team familiarity
B. Group work	B1- Group work B2- Team work

## RESULTS

The study reviewed 10 relevant papers on the topic of group awareness. Table 2 shows the list of the publications such as: ACM Transaction on Human Computer Interaction, European Journal of Information Systems, Organization Science, Management Science, Organizational Behaviour and Human Decision Process, IBM Systems Journal, Personnel Psychology and Journal of Applied Psychology.

Table 2  
*Keywords used in this study*

Type of Publication	Percentage	Paper ID
Journal	80	[P1][P2][P4][P5][P7][P8][P9][P10]
Proceeding	20	[P3][P6]

Three broad dimensions were used to measure group effectiveness (Cohen & Bailey, 1997): 1) performance effectiveness 2) member attitudes and 3) behavioural outcome. Examples of performance effectiveness include improved communication, coordination, productivity, response times, quality, customer satisfaction and innovation. Examples of member attitudes include employee satisfaction, commitment and trust. Examples of behavioural outcome include absenteeism, turnover and safety and group knowledge.

Performance effectiveness was the focus of eight studies (Studies 1, 2, 4, 5, 6, 7, 9 and 10). Two studies (Studies 1 and 9) used completion time to measure group awareness performance. Study 1 found completion time is lower when there is an awareness of support in the group, whereas findings of Study 9 suggest the overall effect of group awareness on speed is significant and it supports the hypotheses for the study. Study 1 also indicates communication is more effective and helps to minimise error in the group work.

Two studies (Studies 4 and 6) used structural complexity to measure group performance. Structural complexity refers to coordination and team size in a group. Studies found team size and geographic dispersion had a negative effect on group

performance. However, group awareness helps to reduce these negative effects by narrowing the performance difference between collocated and geographic dispersion and also between small and large teams. Both studies support the hypotheses that group awareness has a positive effect on structural complexity.

Study 5 measures product defects to examine the impact of group awareness on group performance. Findings show the group is able to reduce product defects to 18.6% and able to deliver the product on time and without exceeding the budget.

Study 7 examines group composition on decision making. Results show group members who are familiar with each tend to solve more cases.

Other studies, such as Study 2, used the variable decision to measure group performance while Study 10 used data from coal miners to measure productivity. Both studies showed a positive link.

Only two studies (Studies 3 and 8) explored the behavioural outcome of the group members to measure group performance. Study 10 suggests group awareness can help to contribute to the group members' knowledge. This is possible if group members have been exposed to different modes social learning in their group. It includes Personal Interaction, Task

Observation and Interaction Observation. However, this study suggest group awareness can help shape its members' learning behaviour which can enhance group performance.

Study 8 applies a collective mind theory to understand how the group members learn what they need to know to determine requirement and manage their dependencies.

Table 3  
*Summary of literature review*

Paper ID	Methods Used	Objectives	Type of Outcome Measured	Summary of Result
P1 (Gutwin & Greenberg, 1999)	Experiment	To evaluate the hypotheses: group awareness can improve the outcome of the shared task	Performance effectiveness - Task completion, communication effectiveness	Task completion times – Completion time is reduced when there is group awareness systems. Communication effectiveness – Communication is more effective and helps to minimise errors.
P2 (Cooper & Haines, 2008)	Experiment	To evaluate the hypotheses: Group awareness will improve decision making	Performance effectiveness - Decision quality	Decision quality - Study found group awareness aided decision making and consensus-seeking. Group awareness has helped members to discuss, instruct, consult, coordinate and assist other group members.
P3 (Singh, Dong & Gero, 2009)	Experiment	To investigate the relationship between modes of social learning and level of group familiarity to enhance group performance	Behavioural outcome - Group knowledge	Group knowledge- As group familiarity increases, group performance also increases. Social interaction has an effect on group awareness which in turn elevates group performance.
P4 (Espinosa et al., 2007)	Case study	To evaluate hypotheses : 1. Group familiarity and geographic dispersion interact positively and has an effect on group performance; there is a positive effect of team familiarity on group performance especially when teams are geographically dispersed	Performance effectiveness – structural complexity	Distance – Results showed that geographic dispersion and team size had a negative effect on performance. However, group familiarity helps to mitigate these negative effects by narrowing the differences between co-located and geographically dispersed teams.

Table 3 (continue)

<p>P5 (Huckman, Taats &amp; Upton, 2009)</p>	<p>Case study</p>	<p>2. Group familiarity and team size have positive effect on group performance, such that the effect of team familiarity on group performance is stronger when teams are larger  To examine the impact of experience on group performance</p>	<p>Performance effectiveness - Product defects</p>	<p>Team size – Group familiarity also helps to narrow the difference in performance between small and large teams. More members mean extra resources to boost performance of the group.  Product defects - The study found the level of awareness (e.g. the average number of times each member worked with every other member of the team) has a significant effect on performance. The team member – for instance Project Manager (PM) - is better able to allocate responsibilities among team members and manage interdependencies. The project team members such as the engineers also have the ability to identify and manage interdependencies. This benefits the team where the team is able to reduce the product defects to a rate of 18.6% and able to deliver the product on time and without exceeding</p>
<p>P6 (Espinosa et al., 2002)</p>	<p>Case study</p>	<p>To test hypotheses : shared mental model and work familiarity have a positive effect on coordination in large-scale software development</p>	<p>Performance effectiveness – structural complexity</p>	<p>Distance – Study 1 (interview) - Results suggest that 78% of the participants recognised the importance of coordination and understanding the strengths of each member (e.g knowing who knows what, familiarity with colleagues) Study 2 (survey) – Shared mental model had a positive effect on team coordination</p>

Table 3 (continue)

				<p>Study 3 (archival study)          – shared mental model          reduced time take to          develop software          Work familiarity –          Study 1 (interview) -          Results also showed that          participants recognised          the importance of          coordination and shared          mental models of the task          (e.g. shared knowledge          of the concepts, common          vision of goals)          Study 2 (survey) – no          significant results          Study 3 (archival study)          – familiarity with the          same modules or files          reduced time for software          development</p>
P7 (Gruenfeld, Mannix, Williams & Neale, 1996)	Experiment	To examine the role of group composition on group decision making	Performance effectiveness – number of cases solved	<p>Cases solved - Three          different group          compositions were set          up – a) three individuals          know each other b) two          familiar individuals and a          stranger c) three strangers.          Results from this study          indicates all familiar          and 2 familiar/1 stranger          groups were most likely          to identify the correct          suspect when critical clues          remained unshared. This          improves group’s decision          making which enhances          group performance (in the          number of cases solved)</p>
P8 (Crowston & Kammerer, 1998)	Case study	To understand how the group members learn what they need to know to determine requirement and manage their dependencies	Behavioural outcome - Members learning behavior	<p>Member learning          behaviour - This study          applies a collective mind          theory to understand          how the analysts learned          what they need to know          to determine requirement          and manage their          dependencies. The major          claim of that theory is that          individuals develop</p>

Table 3 (continue)

				shared understanding of one another which can enhance group performance. Two companies were examined. The results showed companies who employ three individual behaviour such as contribution (an individual member of a group contributes to the group outcome) 2) representation (an individual builds internal models of the group) and subordination (an individual puts the group's goals ahead of individual goals) tend to have a positive effect on group performance. The group with the stated behaviours can perform task conscientiously, make decisions intelligently, able to coordinate the contributions to other group members effectively, had little difficulty correctly identifying persons who would be affected by changes.
P9 (Harrison, Mohammed, Mcgrath, Florey & Vanderstoep, 2003)	Experiment	To examine the hypotheses varying levels of group members familiarity and its effects on group performance	Performance effectiveness - Completion time	Completion time – Results show that the overall effects of familiarity on speed and quality of group performance is significant and it supported the hypotheses.
P10 (Goodman & Leyden, 1991)	Case study	To examine the effects of familiarity on group productivity	Performance effectiveness - Productivity	Data from 26 coal miners indicate that the awareness or familiarity among the workers increase group productivity. The study also found, absenteeism leading to staff being replaced and thus affecting the level of familiarity in the work group.

## DISCUSSION AND CONCLUSION

This study contributes to research on group awareness and group work by synthesising the literature on the impact and benefits of the former on the latter. This study is important as it provides empirical evidence on the explanation on benefits of group awareness for the members of the group.

An in-depth and systematic review of relevant literature showed group awareness has a significant impact on members of the group in terms of reducing time taken to complete a job, make communication more effective, improve decision making, reduce coordination problem, increase productivity, and improve the group member's learning behaviour. Social interaction, experience working together and shared beliefs support group awareness and this in turn, enhance group performance.

### Future Research

Based on empirical studies, it is believed that group awareness can also provide a positive impact to software development – for instance, improve the quality of decision making, improve coordination and communication and others. Thus, software development demands heavy involvement of members of the group which requires coordination and communication among group members to accomplish the task. Our future research will focus on the impact of group awareness in software development.

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## **Interdependence between Social Value, Emotional Value, Customer Experience and Customer Satisfaction Indicators: The Case of Halal Cosmetics Industry in Malaysia**

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### **ABSTRACT**

This study aims to examine the determinants of consumer experience and satisfaction in relation to *Halal* cosmetics products based on Sheth's Theory of Consumption Value. The 359 Muslim and non-Muslim respondents in this study were between 16 and 64 years, residing in urban Malaysia, Wilayah Persekutuan (Kuala Lumpur), Northern states (Pulau Pinang), Southern states (Melaka and Johor), Western States (Selangor), East Coast (Kuantan and Terengganu), Sabah and Sarawak. Findings of this study show that respondents are predominantly influenced by both social value and emotional value towards halal cosmetics products. This study therefore, offers guidelines to halal manufacturers in expanding their market, achieve competitive advantage, and governmental organisations to encourage halal consumption.

*Keywords:* Customer satisfaction, emotional value, experience value, Halal cosmetics products, social value, Theory of Consumption Value

### **INTRODUCTION**

The Malaysian government has made efforts to achieve competitive edge in the Malaysia's halal cosmetics industry. As shown in Figure 1, the *Halal* Master Plan addresses issues of certification, sector development, halal integrity, implementation, timeframe, and responsibilities (Saifol, 2011).

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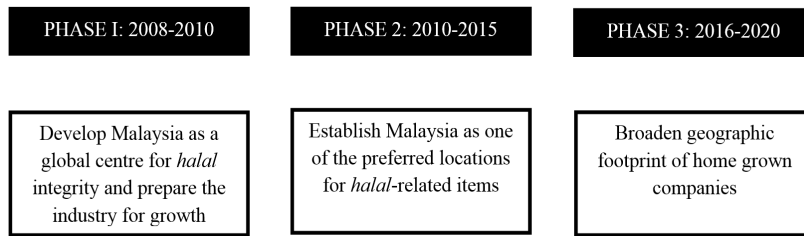


Figure 1. Phases of the *halal* master plan for Malaysia  
 Source: Saifol (2011)

The *halal* industry in Malaysia covers food and beverages, food ingredients, additives and supplements, toiletries and cosmetics, animal feed, drugs and vaccines, Islamic finance, pharmaceuticals, insurance, leather products and logistics (*Halal Industry Development Corporation, 2012*). The non-food *Halal* products such as cosmetics, personal care products, leather products, nutraceuticals and pharmaceuticals, and tableware are very new markets to be explored for *halal* certification (Abdullah Swidi, Hassan, Al-Hosam, & Mohd Kassim, 2010; Ahmad, Fazullah, Borham, Hashim, & Razak, 2011; Noreen Noor & Eta, 2013; Ahlam Nuwairah, Azmawani, & Suhaimi, 2014).

Malaysia *halal* exports accounted for 5.1% of total exports as at December 2012 (Halal Industry Development Corporation, 2012). The *halal* industry is expected to contribute 5.8% to Malaysia’s gross domestic product (GDP) by 2020, accompanied by a steady growth of 5% annually (Business Times, 2011). According to Euromonitor International, the *halal* cosmetics market in the world is estimated to be worth USD482 billion and the industry is slated to grow at an average 13.6% a year until 2019,

representing one of the few markets that continue to grow despite the global crisis (Euromonitor, 2015). The demand for *halal* products is increasing due to rapid growth of the Muslim population worldwide as well as the increasing interest of the non-Muslims for more hygiene, safe and organic products via *halal* products. Therefore, the *halal* cosmetics industry is an emergent market with great investment potential.

### Problem Statement and Objective of the Study

Although *halal* products factor in safety, hygiene and religious values, many Muslims place greater value on foreign brands from the West (Che Mohd Hashim & Musa, 2014). This has directly impacted on sales and consumption of *halal* cosmetics among Muslims for the “home brand” in Malaysia. For instance, Unza’s first Eversoft product was formulated in Japan in 1985 and its product range includes shower foam, facial cleanser, anti-aging skin care, whitening skin care and olive oil. However, its market share is still low compared with other established non-certified *halal* cosmetics products. The total sales for skin care

products in Malaysia in 2014 was RM1630 million (Euromonitor, 2015). Out of the 32 brands listed, the halal certified brands in the list are Eversoft at the 19<sup>th</sup> position and Aiken at 28<sup>th</sup> position with 1.4 percent and 0.8% total retail sales respectively. Weak strategy and lack of interest among Muslim consumers may be the reason behind slow sales for these *Halal* certified brands.

Due to competition among the cosmetics manufacturers, the cosmetics industry is consistently changing and new products with distinctive features have been introduced through exhibition events at international level. The Malaysia *Halal* cosmetics industry players must strive hard to create a niche, highlighting advantages and identifying product key attributes that can fulfil customer requirements. Understanding customer behaviour is crucial in influencing their purchase decision (Shah & De'Souza, 2009).

Customer satisfaction data can assist marketers to plan effective marketing plan so that the customers have a positive experience with the company's goods and

services. Customer satisfaction is vital to maintain a competitive advantage (Cengiz, 2010, Deng, Lu, Wei & Zhang, 2009). What are the factors involved in influencing purchasing decision of *Halal* cosmetics products? This will be tackled in this paper.

Previous studies have discussed consumption of *Halal* cosmetics consumption theoretically and empirically in different context and society. However, research on the impacts of experiential values in the *Halal* cosmetics industry is limited. This study discusses two factors, social value and emotional value that may influence consumer experience towards *Halal* cosmetic products. The objectives of the study are to: identify the relationship: between social value and customer experience towards *Halal* cosmetics products; identify the relationship between emotional value and customer experience towards *Halal* cosmetics products and lastly to determine the relationship between value of customer experience and customer satisfaction. Figure 2 shows the framework of the study.

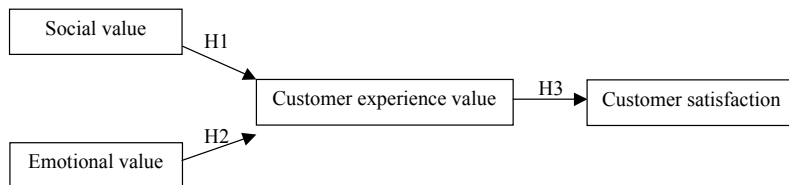


Figure 2. Framework of the study

## Literature Review and Hypothesis Formation

Sheth, Newman and Gross (1991) is one of the most important contributor to the body of knowledge on perceived value (Sanchez-Fernandez & Iniesta-Bonillo, 2007). Sheth et al. (1991) explained that consumer purchase choice is a form of consumption value which can be categorised as social value (symbolic and group membership) and emotional value (affective responses), where each plays a different role in consumer's decision (Deng et al., 2009).

According to Sheth et al., (1991), social value refers to perceived utility acquired from an alternative's association with one or more specific social groups and an alternative acquires social value through association with positively or negatively stereotyped demographic, socioeconomic and cultural-ethnic groups. In other words, social value includes prestige, status and a common sense of belonging, and not merely economic measure (Hessami & Yousefi, 2013). According to Sheth et al. (1991), choices involving highly visible products, such as clothing, jewellery and goods or services shared with others as a gift, are often driven by social values. Haytko and Baker (2004), Luo (2005), and White and Dahl (2006) have reported that the customer's experience is impacted by the social environment. Therefore, it is hypothesised that social value has a positive influence on customer experience value towards *Halal* cosmetics products.

*H1: Social value has a significant relationship with customer*

*experience towards Halal cosmetics products.*

Emotional value is another dimension of consumption values. It is the perceived utility derived from an alternative capacity to arouse feelings or affective states (Sheth et al., 1991). Emotional value is one of the consumption values that influence consumer decision where a product can stimulate emotions (Bødker, Gimpel, & Hedman, 2009). In addition, emotion refers to the feelings elicited during the product's usage or consumption experience. Roos (1999), Mattila (2001) and Yang and He (2011) have reported that emotional experience will generate effective experience, ranging from a little positive moods and progress to a strong emotion of joy and satisfaction attached to a brand. Hence, it is hypothesised that emotional value has a positive influence on customer experience value towards *Halal* cosmetics products.

*H2: Emotional value has a significant relationship with customer experience towards halal cosmetics products.*

Holbrook and Hirschmann (1982) theorised that consumption has experiential aspects. Schmitt (1999) explored how companies create experiential marketing by having customers sense, feel, think, act and relate to a company and its brands. Berry, Carbone and Haeckel (2002) suggest that in order for organisations to compete by providing customers with satisfactory experience they must know all the factors that influence the

buying process. Generally, a customer's experience affects overall satisfaction and loyalty (Grace & O'Cass, 2004). Customer satisfaction is the customers' response to what they had expected and what they had experienced from a product/process (Hallowell, 1996). According to Zeithaml (2000), firms can achieve higher retention rate, positive word of mouth and increased profits by increasing customers' satisfaction. On the other hand, Khalifa and Liu (2007) theorised that the influence of satisfaction on repurchase intention is moderated by experience. Therefore, it is hypothesised that customer experience value has a positive influence on customer satisfaction towards *halal* cosmetics products.

*H3: Customer experience value has a significant relationship with customer satisfaction towards halal cosmetics products.*

## METHODS

This study used survey method in order to collect data obtained via self-administered questionnaire. The first section is about the respondent's purchase background with *Halal* cosmetics. The second section is regarding the social value of the respondent towards *Halal* cosmetics product. This section used 5-point Likert scale on the respondent's answer about the influence of immediate peer group and social self-concept. The questionnaires in this section were adapted from Taylor and Todd (1995); Sirgy (1998); Pavlou and Chai (2002); Bonne, Vermeir, Bergeaud-Blackler and Verbeke. (2007); Solomon, Bamossy,

Askegaard and Hogg (2010); and Amin and Chong (2011). The third section is about the respondent's emotional value towards *Halal* cosmetics based on their feedback on the store's atmosphere and service. The questions in this section were adapted from Sirgy, Grewal and Mangleburg (2000); Alhemoud (2008); Lovelock (2010); and Angelova and Zekiri (2011). The fourth section is about experience value where the respondents are asked to choose the experience they had when buying *Halal* cosmetics product. The questions were adapted from Holbrook (1999). The last section is about customer satisfaction where the respondents are asked about their willingness to be loyal customers to a *halal* cosmetics product. The questions in this section were adapted from Hansenmark and Albinson (2004) and Mohsan, Nawaz, Khan, Shaukat and Aslam (2011). Only 359 responses were usable for further analysis. Descriptive analysis was carried out using the SPSS software version 23 and structural analysis was performed using PLS 3.0.

## RESULTS AND DATA ANALYSIS

### Respondents' Profile

Although the comparison between demographic variables (i.e., gender, age, ethnic group, marital status, education level, occupation, income and current residence) and customer satisfaction to purchase a *Halal* cosmetics product is not included in the research objectives, the analysis is useful to provide a better understanding about the characteristics of future buyers. Descriptive analysis was used to analyse

demographic information of the respondents such as gender, age, ethnic group, marital status, education level, employment status, income and current residence. Referring to Table 1, the study respondents are females, aged 25-34 years, Malays, single, with SPM secondary education level, works in the

private sector, earning between RM1001 to RM3000 per month, stays in Kuala Lumpur and have bought *Halal* cosmetics products within the last one month.

### Descriptive Analysis

Table 1  
*Demographic profile of respondents (n = 359)*

Variable	Category	Frequency	Percentage
Gender	Male	119	33.1
	Female	240	66.9
Age	16-24	75	20.9
	25-34	147	40.9
	35-44	103	28.7
	45-54	30	8.4
	55-64	4	1.1
Ethnic group	Malay	205	57.1
	Chinese	95	26.5
	Indian	59	16.4
Marital status	Single	200	55.7
	Married with children	129	35.9
	Married with no children	30	8.4
Education level	SPM	154	42.9
	STPM	43	12.0
	Diploma	121	33.7
	Bachelor degree	41	11.4
Employment status	Public sector	116	32.3
	Private sector	136	37.9
	Self-employed	34	9.5
	Unemployed	3	0.8
	Housewife	13	3.6
	Student	33	9.2
Monthly income/allowance	Others	24	6.7
	RM1000 and below	71	19.8
	RM1001-RM3000	135	37.6
	RM3001-RM5000	107	29.8
	RM5001-RM7000	33	9.2
	RM7001 and above	13	3.6



Table 1 (continue)

Current residence	Kuala Lumpur	115	32.0
	Pulau Pinang	46	12.8
	Melaka	31	8.6
	Johor	65	18.1
	Selangor	13	3.6
	Kuantan	24	6.7
	Terengganu	24	6.7
	Sabah	25	7.0
	Sarawak	16	4.5

The minimum and maximum value represents the Likert scale used in this study. The minimum value of all the constructs is 1.00 and the maximum value is 5.00. Most of the variables have the mean near to the average range between 3.8389 and 4.0746; and the standard deviation ranges from 0.5728 to 0.7146. The score of standard deviation implies that there

is variability in answering the questions among the respondents. The minimum and the maximum responses of each construct are also presented in Table 2. All the constructs are on the acceptance level of implementation and are at a satisfactory level.

### Hypothesis Testing

Table 2  
Descriptive statistics of the constructs

Construct	Minimum	Maximum	Mean	Standard Deviation
Customer satisfaction	1.33	5.00	3.8389	0.7146
Customer experience value	1.53	5.00	4.0746	0.5728
Social value	1.00	5.00	3.9442	0.6846
Emotional value	1.63	5.00	4.0122	0.6585

The t-values accompanying each path coefficient was generated using bootstrapping as reported in Table 3. When the t-value is larger than the critical value in a certain error probability, then the coefficient is considered significant. For two-tailed tests, the critical values are 1.96 at a significance level of 0.05 or five percent;

while 2.57 for a significance level of 0.01 or one percent (Hair et al., 2014). Researchers usually refer to five percent significance level for marketing research and one percent significance level for consumer research studies (Hair, Hult, Ringle & Sarstedt, 2014). From the results, we can conclude that social value ( $\beta=0.171$ ,  $t=2.002$ ,  $p<0.05$ );

emotional value ( $\beta=0.261, t=4.361, p<0.01$ ) have a positively significant effect on customers' experience value to purchase a *halal* cosmetic product; and results also show that customers' experience value toward the *Halal* cosmetics products has a

positive and significant impact on customers' satisfaction to purchase a *Halal* cosmetic product ( $\beta=0.471, t=12.592, p<0.01$ ). Thus, H1, H2 and H3 are supported.

Table 3  
*Path coefficients and hypothesis testing*

Hypothesis	Relationship	Path Coefficients	Std. Error	t-value	p-value	Decision
H1	Social value -> Customer experience	0.171	0.085	2.002	0.045	Supported
H2	Emotional value -> Customer experience	0.261	0.060	4.361	0.000	Supported
H3	Customer experience -> Customer satisfaction	0.471	0.037	12.592	0.000	Supported

**CONCLUSION**

The findings of the study suggest that two factors, social value and emotional value, have significant influence on customer experience for halal cosmetics product and customer experience has insignificant relationship with customer satisfaction to purchase a Halal cosmetics product. The finding helps academicians develop strategies that could lead to customers' satisfaction to purchase Halal cosmetics products. Therefore, halal cosmetics producers should improve the social value, emotional value and customer experience value to satisfy their customers and purchase halal cosmetics products.

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## **Medical Tourism: The Effects of Perceived Benefits, Perceived Risks and Geographic Region**

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### **ABSTRACT**

Malaysia has been targeting health travellers as a source of foreign exchange income especially after the Asian Financial Crisis. It is crucial for medical tourism industry in Malaysia to meet the expectations of their international clients as it competes with neighbours such as Thailand and Singapore. This study assesses the antecedents of attitude influencing the behaviour intention of potential health travellers in Malaysia by examining two dimensions of perceived value, namely perceived benefits and perceived risks. Findings of the study indicated that perceived value is a key predictor of tourist behavioural intentions. A difference was observed between regions among countries of origin. The research also highlighted managerial implications for private hospitals in the areas of marketing and product development. It is recommended hospitals should pay more attention to healthcare service value based on geographic regions of origin in order to create competitive advantage.

*Keywords:* Health travellers, intention, Malaysia, medical tourism, perceived benefits, perceived risks

### **INTRODUCTION**

Medical tourism has increased in popularity in recent decades (Caballero & Mugomba, 2006) due rising interest for better healthcare

(Paffhausen, Peguero & Roche, 2010), rising medical costs in the US and European nations (Sarwar, Manaf & Omar, 2012). Additionally, strict visa regulations in the United States and Europe especially after 9/11 occurrence (Forgione & Smith, 2007) have posed difficulties for tourists to access healthcare services in the West. Hence, many nations around the world have begun to venture into medical tourism to capitalise on this (Caballero & Mugomba, 2006). Among the destinations, Thailand,

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Singapore, India and Malaysia are among the most sought after in the world. Within ASEAN, Thailand is on the top list (Picazo, 2013), while Malaysia and Singapore have been identified as among the fastest growing markets (Brinker & Ong, 2014). India has joined the bandwagon and became an attractive market for the Middle East whereby half of the former's medical tourists come from the latter region (Neelankantan, 2003). The New Straits Times reported that Malaysia is among the most famous medical tourism destinations in the world, attracting more than 790,000 health travellers in 2014, generating an income of RM730 million (Bernama, 2015).

Malaysia is ideal for regular and recurrent treatments from moderate to complex cases with high-quality treatments at competitive prices (Deloitte KassimChan, 2013). Comparing the average costs of selected medical procedures between Asian countries and the US, Patients beyond Borders estimates savings in Malaysia at 65-80%, India at 65-90% Thailand at 50-75%, and South Korea at 30-45% (Yamasaki & Fujiwara, 2015). Consequently, Malaysia's service providers have a competitive advantage due to their high standard of medical services at a reasonable cost.

Nonetheless, the hospitality industry in Asia is facing serious market competition (Smith, 2006). In order to stay aggressive, concentrating on the client's behaviour has turned out to be imperative for the success of business. As an important segment of the tourism industry, medical tourism sector must be studied to ensure it is sustainable.

There is a dearth of studies focusing on this topic especially empirical studies. Additionally, there is lack of data regarding clients' perception of favoured medical destination based on their regions of origin. In order to examine the various factors contributing towards the development of medical tourism in Malaysia, this study aims to determine health travellers' perceived intention based on their perceived value by comparing perceived benefits and perceived risks focusing on their country of origin.

### **Theoretical Background**

Theory of Planned Behaviour (Ajzen, 1991) explains the antecedents to attitudes, subjective norms and perceived behavioural control with the assumption that all these determine intentions and actions. In Ajzen's model, beliefs are considered an important prerequisite in determining an individual's behaviour. In this regard, the rational evaluation of consequences determines the attitudes towards behaviour. The present authors take a more hedonistic perspective for this study, assuming that people are moved by seeking rewards and avoiding punishments. Hence, intentions depend on the strength of the belief (i.e., perceived value) with the attitude and ability to carry out a specific behaviour (i.e., intention to visit).

Perceived value has been the focus of scholars who study tourism and who are keen on exploring and understanding the impact of various types of products and services (Petrick, 2004). Interestingly, most



of the studies explored the development of constructs for perceived value and evaluated the ability of the construct to determine visit intentions. It was shown that that perceived value can predict travellers' intention to visit. Thus, perceived value may be considered as an assessment of risks and benefits (Kotler, 2003). When health travellers have to make a decision, they usually decide by comparing the difference between the risks and benefits incurred. If the benefits are greater than the risks, there will be an indication of "perceived favourable," which may lead to a positive travelling decision. In line with this interpretation, perceived value is a context-specific construct consisting of perceived benefits and perceived risks that may drive travellers' attitudes and behaviours. Perceived Benefits can be defined as the acceptance of personal vulnerability to conditions also believed to be important when held to produce a force leading to behaviour. There are two main categories of perceived benefits: direct and indirect. Direct advantages refer to immediate and tangible benefits that client's experience. Indirect advantages refer to those benefits that are less tangible and hard to quantify by clients. Whereas the perceived risks can be described as the degree of potential loss due to unfavourable outcomes of the act and the individual's sense of certainty that the consequences will not be favourable (Dholakia, 2001). It refers to the size of a potential loss to the international travellers' (Dholakia, 2001). The higher the expectation, the greater the size and severity of potential loss.

### **Perceived Benefits on Attitude**

Perceived benefit is a potential antecedent of attitude towards certain behaviour (Forsythe, Liu, Shannon & Gardner, 2006). Studies have indicated that an individual is more concerned about perceived risk than benefits towards attitude (Bhatnagar & Ghose, 2004a; 2004b). The most appropriate measurement for perceived benefits in medical tourism is product quality (Kerin, Jain & Howard, 1992). This includes financial savings, convenience, quality of medical service, and hospitality products (Han & Hwang, 2013). According to Wang (2012), product quality can be divided into three components: perceived service quality, perceived medical quality, and perceived enjoyment. Scholars have pointed to the motives behind the desire to buy products and services: functional (extrinsic) needs, and non-functional (intrinsic) wants. Functional factors associated with emotional or psychological components such as enjoyment are especially critical to the service industry (Lin, Sher & Shih, 2005). Similarly, several studies have confirmed that a positive emotional state has a significant influence on a client's value perception (Lin et al., 2005). Thus, following hypothesis is proposed:

*H1: Perceived benefits exert significant positive effect on attitudes.*

### **Perceived Risks on Attitude**

Attitude can be shaped by both perceived risks and benefits and that determines intention (Ajzen, 1985, 1988). The

negative relationship between perceived risks and attitude was conceptualised by (Jurison, 1998). Low-risk perception and/or high benefit perception towards an object accelerate the attitudinal orientation of a client and his/her behaviour (Jarvenpaa, Tractinsky, & Vitale, 2000). There are empirical studies on the linkage between risk/benefit perception and attitude. Huang (1993) concluded that perceived risks toward pesticide uses significantly affect consumer attitudes. Further, it is confirmed that low-risk perception related to online purchases affects consumers' favourable attitude toward the Internet store (Jarvenpaa et al., 2000). Therefore, this study hypothesised that perceived risk shape health travellers' attitudes towards medical tourism. Thus, this study proposed the following second hypothesis:

*H2: Perceived risks exert significant negative effect on attitudes.*

### **Attitude on Intention**

Attitude is a learnt behaviour and a function of the client's perception and assessment of the key attributes or beliefs towards a specific object (Schiffman & Kanuk, 1997). Attitudes are fundamental to the theory of consumer decision-making (Newholm & Shaw, 2007), as traditional theory of understandings on attitude conclude that attitudes predict behaviour (Ajzen & Fishbein, 2000). Nevertheless, contemporary social psychological research on attitudes questions this as context may change such as how subjects are framed or if they are in affective states (Ajzen & Fishbein,

2000). This challenges the predictive and explanatory power of the Theory of Planned Behaviour, which is premised on attitudes towards a behaviour together with subjective norms and perceived behavioural control, leading to comparable intention (Ajzen, 1991). This dilemma is important in relation to the reported gap between attitude and behaviour in controlling behaviour (Newholm & Shaw, 2007). Many studies on travel behaviour rely, to a large degree, on attitude construct. Hence, this study aims to contribute to a better understanding of attitude and intention of medical tourists as affective elements which would be useful for human behaviour modelling. Hence, the following third hypothesis is proposed:

*H3: Attitudes exert significant positive effect on intention to visit.*

### **Moderating Effects on Geographic Regions**

The top ten home-countries for medical tourists to Malaysia in 2011 are Indonesia, India, Japan, United Kingdom, China and Hong Kong, US, Australia, Iran, Libya, and Nepal (Suleiman, 2013). Indonesia has contributed a major market for Malaysia's medical tourism owing to the emerging Indonesian middle class who wish to get their medical treatment abroad. Health travellers from Indonesian are comfortable to obtain healthcare service in Malaysia mainly because of the combination of common language, foods, religions and the ease of travel distance. The differences of religions between host countries and travellers do not only affect the interactions, but also

influence the very presence of hospitality in a region (Kirillovaa, Gilmetdinovab, & Lehtoc, 2014). Looking at the opportunity of attracting global Muslim consumer base is estimated at 1.7 billion in 2015 (Central Intelligence Agency, 2016). Consequently, Malaysia is keen in opening up a larger Muslim market share through provision of halal treatments. Hence, based on the above discussion, geographic regions of origin may have a positive influence on behaviour intention and this subsequently may positively affect attitude. Hence, the following hypothesis is proposed:

*H4: Geographic regions of origin tourists exert positive influence on attitudes towards intention to visit.*

**Proposed Conceptual Framework**

Based on literature review, a conceptual framework as below was developed to show the relationship between perceived value (perceived benefits and perceived risks) as independent variable and behaviour intention as dependent variable with geographic regions of origin as moderator (see Figure 1).

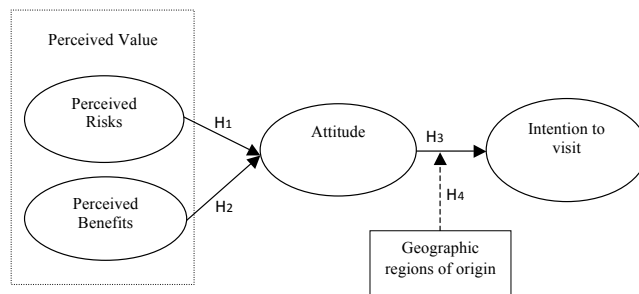


Figure 1. Proposed research framework for this study

**METHODS**

Structured questionnaire was used to collect data. The first part covers perceived risks and benefits of medical tourism as well as respondent’s attitude and behavioural intention. The 13 items were used to measure the perceived benefits while 19 items measured perceived risk factors, 4 items on attitude and 5 items on behavioural intention. The questions were aimed at understanding respondents’ future participation intention. The second part of the survey was on the respondents’

demographic profile. A 5-point Likert scale was used to measure the responses (‘1 as ‘strongly disagree’ and 5 as ‘strongly agree’). Data was analysed using SPSS 20.0. Frequencies were calculated and reliability analysis was conducted to examine the internal consistency among the items. Data were tested using multiple regression analysis for hypothesis testing to identify which of the perceived benefits and risks affect attitude and tourists’ participation intention. The respondents were 400 random international tourists who arrived

at Kuala Lumpur International Airports (KLIA). Questionnaires were administered using quota sampling equal samples were collected from each area. After eliminating unusable sample, 385 valid questionnaires were used for final analysis.

**Profile of Respondents and Reliability Analysis**

Table 1 shows that most of the respondents were male. The largest group of respondents were aged 21-30. Majority of the respondents had an undergraduate degree. The largest group of tourists is from Asia.

Table 1  
*Demographic profile*

Demographic Profile	Categories	Frequencies	Percentage (%)
Gender	Male	238	61.8
	Female	147	38.2
Education Level	Without any Degree	132	34.3
	Bachelor’s Degree	161	41.8
	Master’s Degree	55	14.3
	Doctorate Degree	37	9.6
Age Group	17 and Below	1	0.3
	18 to 20	23	6.0
	21 to 30	163	42.3
	31 to 40	119	30.9
	41 to 50	41	10.7
	51 to 60	22	5.8
	More than 60	11	3.0
Regions	Africa	25	6.6
	Asia	194	51.1
	Europe	94	24.7
	Middle East	10	1.3
	Oceania	30	7.9
	The Americas	32	8.4

**Regression and Univariate Analysis Reporting**

Previous studies have shown that perceived risks are basic variables but yet critical factors that influence tourist attitudes. The respondents were asked about perceived risks and their attitudes as well as perceived benefits and attitude. Based on the results, the most important perceived risk is that it

is “not in line with social status”. Therefore, higher perceived risk shows lower intention. Likewise, results also indicated the most important medical tourism perceived benefits is “competent doctors”. Therefore, the higher perceived benefit shows higher intention. Both factors: perceived benefits and perceived risks are significantly related to attitude (Table 2) whereby the R<sup>2</sup> value is

0.313. Regression analysis was also carried out between attitude and participation intention whereby it shows that the R<sup>2</sup> value is 0.438, which indicates that almost 43.8% of variance in participation intention can be

explained by attitude. The F-test provides statistical significance F (295.095), p, 0.000. Therefore, higher attitude shows higher intention.

Table 2  
*Regression result*

Hypothesis	Relationship	Beta	T-value	Sig. (p-value)	Result
1	Perceived Risk → Attitude	0.382	7.441	0.000	Supported
2	Perceived Benefit → Attitude	-0.248	-4.839	0.000	Supported
3	Attitude → Intention	0.662	17.178	0.000	Supported

Participation intention as the dependent variable, attitude as the independent variables, and country region of origin as the moderator were used for univariate analysis. This study found geographic region of origin among respondents as playing an important role. D Therefore, Malaysia should strengthen socio-cultural ties with Commonwealth countries such as UK, Australia and New Zealand that are united by language, history, culture and their shared values to tap into their markets. It ought to focus on other potential markets among Regional Comprehensive Economic Partnership (RCEP) nations, for example, China and India, and potential markets among Trans-Pacific Partnership (TPP) nations, for example, USA and Japan as well as the ASEAN Economic Community (AEC) which can be potential markets, such as Vietnam, Laos, Cambodia, and Myanmar. With the rise of Halal tourism and recognition of Malaysia as an Islamic nation (Chaynee, 2003; Henderson, 2003),

medical travellers from West Asia could be a source of business.

**RESULTS AND DISCUSSION**

In view of the results, all null hypotheses are rejected and all hypotheses H1, H2, H3, and H4 can be supported. First, it was found that the perceived risk factors had an impact on attitude. In other words, perceived risks were found leading to reduced attitude towards participation intention, consistent with the findings of (Jurison, 1998). Second, it was found that perceived benefits, especially perceived medical quality, would likely influence potential health travellers’ attitude towards participation intention. The findings are supported by Lloyd (2005), Bies and Zacharia (2007) and Connell (2006). Furthermore, perceived risk has stronger relationship with intention than perceived benefit with intention. Third, it was found that attitude had a significant impact on participation intention. This is confirmed by Ajzen and Fishbein (2000). Finally, of the

tourists' attributes, it was discovered that the geographical region of origin influenced their behaviour intention. Moreover, attitude explains 31.5% of the variance ( $R^2$ ) in the participation intention, which is moderate. Overall, the results indicated that geographic region of origin influences participation intention of the potential health travellers. It can be inferred that medical tourism in Malaysia encouraged by its good quality healthcare which influences tourist attitude, while, the role of geographic region of origin in terms of participation intention is important.

The government should consider improvements in the respective areas: Medical professionals, hospital, the Ministry of Health and the Ministry of Tourism should work together effectively and must carefully consider perceived risks which are highlighted in this study to promote medical tourism. Private hospitals and healthcare centres in Malaysia could use these findings to improve their own weaknesses and update their knowledge and standards as well as upgrading their equipment and facilities. They can integrate their own marketing strategies and public relation efforts to achieve their primary objective. It was clear that tourists got their information mostly from the internet. Hence, it would be more productive for the hospitals and healthcare centres management to use the web to market their products and services. Findings showed that returning travellers based their revisit intentions from past experience and whereby almost 60% of tourists usually trust and follow their relatives, family and friends in travelling.

### **Limitations and Future Research**

The current research has few limitations. The first, the perceived risks is based on personal characteristics; there may be high perceivers and low perceivers. Be that as it may, the present study did not include these personal characteristics. Hence, it is proposed that personal characteristics of travellers should be examined in future studies. Second, the common method bias is normal in most research. Therefore, further research will need to include some analysis to assess the common method bias in the respective study, for instance, Harman Single Factor Analysis.

It is recommended that future research targets health travellers based on their country of residence so as to provide better and in-depth results which would be useful for hospitals and healthcare centre management as well as for the Ministry of Health, Malaysia.

### **CONCLUSION**

The main aim of this study was to explore the impacts of medical tourists' perceived risks on their participation intention. The current research also studied perceived benefits and risks factors that influence health travellers' selection of destination. It also aimed to find which of the two, perceived risks or perceived benefits, exerted more influence on attitude towards participation intention. The study shed light on perceived risks and perceived benefits, attitude and future participation intention for medical care in Malaysia. Findings of the study highlighted that medical tourism in

Malaysia has a good potential and enormous opportunity to increase revenue. It also showed that ‘geographic region of origin’ of potential health travellers influences attitude on participation intention. The study found that tourists from West Asia showed the highest participation intention and Malaysia remains an attractive and reputable medical tourism destination.

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## **Postpartumhood: Dietary Practices and Breastfeeding Attitudes among Malays**

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### **ABSTRACT**

Postpartum care is influenced by both traditional beliefs and contemporary health care practices. This paper explores mothers' perception of food served in the maternity ward of government hospitals, perception of breastfeeding in public and its relation to postpartum wellness, and the role of Baby Friendly Hospital Initiatives (BFHI) in the promotion of breastfeeding. The respondents for this study were 10 Malay mothers aged between 20 and 40 from different educational levels. They adhered to food restrictions based on the hot-cold theory in their postpartum period. The findings indicate that hospitals, though providing a well-balanced diet, should not ignore traditional dietary practices. This is useful for policy makers, programme managers and health care service providers to provide culturally sensitive health-care interventions. Acceptance of public breastfeeding with discretion is evident among Malay mothers and Baby-Friendly Hospital Initiative is recognised.

*Keywords:* Breastfeeding, hospital, hot and cold, Malay mothers, postpartum food

### **INTRODUCTION**

Many societies regard childbirth as an important rite of passage where women

enter a new phase of life (Yeh, Liu, Tseng, & Liou, 2013; Rice, 2000). Culture plays an important role in the reproductive health of women (Lundberg & Thu, 2011). There are special rituals and customs held during the postpartum period (Manderson, 1981; Lundberg & Thu, 2011). Many societies have their own special practices and rituals to be followed to shield mothers and newborn babies from danger. A review of the literature showed different postpartum

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practices across Asia (Laderman, 1987; Kaewsarn, Moyle, & Creedy, 2003; Yeh et al., 2013; Sein, 2013, Lundberg & Thu, 2011), in Australia (Rice, 2000) and South America (Piperata, 2008). According to Yeh et al. (2013), in many societies, postpartum care is mainly influenced by both traditional beliefs and contemporary healthcare practices (Yeh et al., 2013).

Among Malaysian women, the confinement period is between 30 and 44 days which involve postpartum ritual such as food taboos (Shariffah Suraya, 2013). During this time, most societies view mothers as weak and vulnerable. According to Laderman (1984), Malay women observe a 44-day confinement period which is called “dalam pantang”. Postpartum food restriction is broadly defined as beliefs and taboos on food that were adhered to during the postpartum period by new mothers which are socially constructed and shaped by perceptions and practices of the culture (Piperata, 2008; Yeh et al., 2013). Certain foods are avoided and even forbidden during the postpartum period (Manderson, 1981; Laderman, 1984; Shariffah Suraya, 2013) and mothers are advised to eat only hot food. Postpartum practices which focuses on avoidance of certain food during confinement, when women’s energy and protein needs are higher, have been well researched and documented (Sein, 2013; Piperata, 2008; Lundberg, 2009; Manderson, 1981; Laderman, 1984).

In an ethnographic study of Chinese, Tamil, Malay and Thai women in Malaysia, Henderson (1981) found that most women

followed traditional practices during the postpartum confinement period. In Thailand, the women follow a number of traditional practices in the postpartum period, including the consumption of hot food and fluids. These practices reflect the traditional Chinese beliefs of ‘yin’ and ‘yang’ (cold and hot) (Kaewsarn, Moyle, & Creedy, 2003). Malaysia has supported breastfeeding initiatives that were developed by the United Nations Children’s Funds (UNICEF). Its ‘*Ten Successful Steps of Breastfeeding*’ motivates hospital staff such as nurses and doctors to properly initiate the first efforts of breastfeeding for mothers within the first 24-hours of childbirth.

### **Postpartum Care and Breastfeeding in Malaysia**

The Ministry of Health statistics on birth rate in 2013 (Ministry of Health, 2014) shows an overwhelming majority of women and babies stay in the maternity wards. Majority of women after believe there should be restrictions on types of food served to the new mother. They consume “hot” or “warm” food and avoid “cold” food for a month after birth to restore their balance (Lundberg & Thu, 2011). The hot-cold classification of food, as observed by all ethnic communities in Malaysia, relates not to the temperature of the food or necessarily to its spiciness or its raw or cooked state, but to its reputed effect on the body. In Malay, Chinese and Indian cultures, food is traditionally thought to play a part in the cause and treatment of disease, and knowledge of ‘hot’ and ‘cold’ food was passed down to family members through

experience (Shariffah Suraya, 2013). During the postpartum period, most people believe that mothers are in the “cold” state as they have loss of hot blood during delivery. Malays believed that certain foods must be avoided or even forbidden during the postpartum period following the humoral theory (Laderman, 1987). Therefore, cold food such as certain varieties of fish and certain fruits and vegetables are removed from the diet of a new mother (Manderson, 1981; Laderman, 1987).

This study explored mothers’ perception of food served in the maternity ward as well as their compliance with traditional food taboos. The findings it is hoped will provide policy makers, programme managers and health service providers to consider culturally sensitive health-care interventions by taking into consideration traditional dietary practices into their food menu plan.

Critical Medical Anthropology (CMA) and the Breastfeeding Self-Efficacy (BSE) are the theoretical entry points for this study. Singer (2004) states that the CMA is a theoretical approach within medical anthropology which focuses on the political economy of health and health care while the BSE theory depicts a woman’s breastfeeding confidence as her belief, expectations (past information, prior breastfeeding experiences and observation) skills and knowledge to breastfeed her child successfully (Dennis and Faux, 1999). The present study directly addresses breastfeeding practices and its importance among Malay mothers. Weaning practices are common in Malaysia because the value of sociability begins at the breasts

(Gottlieb, 2004). Public breastfeeding in Malaysia is a social taboo though Malaysian mothers are cultivated to breastfeed publicly by the media (Mohamad, 2011).

### Research Questions

- i. What is the perception of mothers on the postpartum food served in the maternity ward?
- ii. To what extent do mothers comply with the traditional postpartum dietary restrictions?
- iii. How would policy makers and health care providers plan for postpartum food menu served in the hospital’s maternity ward.
- iv. What are the attitudes, beliefs and practices (public breastfeeding) and perceptions of Malaysian mothers on breastfeeding during the postpartum period?
- v. How do mothers view the Baby Friendly Hospital Initiatives (BFHI) in Malaysia?

### METHODS AND DATA ANALYSIS

A total of 10 Malay mothers, aged 20-40, were interviewed and purposive convenience sampling was used to select participants. The study was conducted in June 2015 in a government hospital in Perak. The participants were assured confidentiality after they were briefed of the purpose of study. Their educational level varied from secondary school to bachelor’s degree. The gatekeeper for this study was the Chief Nurse at the maternity ward who helped to identify mothers who

met the selection criteria. Questionnaire was constructed to obtain knowledge, perception and breastfeeding attitudes and BFHI efforts among Malay mothers. The interviews were

transcribed using thematic analysis and four themes were generated and supported with verbatim quotations.

## RESULTS

Table 1  
*Profile of the respondents*

Name of Mother (anonymous)	Race	Age	Educational Level	Occupation	Nuclear/ Extended Family	Number of Deliveries
Azila	Malay	25	Form 5 (SPM)	Military Officer	Nuclear	First delivery
Amirah	Malay	34	Form 5 (SPM)	Housewife	Extended	Third delivery
Hatin	Malay	40	Diploma	Military Officer	Extended	Second delivery
Bashiriane	Malay	38	Form 5 (SPM)	Housewife	Nuclear	Fourth delivery
Lily	Malay	39	Form 5 (SPM)	Housewife	Nuclear	Third delivery
Khuzaifah	Malay	26	Degree	Government Official	Nuclear	Second delivery
Alia	Malay	22	Diploma	Teacher	Nuclear	First delivery
Syazwani	Malay	25	Degree	Housewife	Nuclear	Second delivery
Emma	Malay	27	Diploma	Government Official	Nuclear	Third delivery
Lisa	Malay	39	Degree	Military Officer	Nuclear	Fourth delivery

Demographic details of the respondents

Table 2  
*Menu in the maternity ward*

Breakfast	Morning	Lunch	Tea	Dinner
Coffee/Tea, bread	Biscuits, Tea/ Coffee	White rice, Fish/Chicken (various dishes), vegetables, fruits	Biscuits, Tea/ Coffee	White rice, Chicken/Fish (various dishes), Soup, Porridge

### Perception of Food Served in the Maternity Ward

The hospital provides three main meals daily (breakfast, lunch and dinner) and also two light meals in the morning and evening. The food served meets current nutritional standards approved by the nutritionist. Food served in the maternity

ward, according to the Chief Nurse, is different from food served in other wards. It took into consideration traditional dietary practices. Several foods traditionally eaten during the postpartum period were porridge cooked with black pepper to warm the body. One mother mentioned she consumed food offered at the hospital that she believed were

consistent with the traditional practices, though she avoided other foods that she was unsure of. According to the respondents, they were not informed or given menus listing the food served in the maternity ward. They do not have knowledge on the types of fish and vegetables served to them. One mother mentioned:

*“I’m not sure of the type of fish they served me. So, I don’t eat it and it is such a waste.”*

Majority of the mothers preferred to select their food based on their knowledge of traditional food practices and acceptable nutritional standards. One of the mothers mentioned that she needed nutrient-rich food to maintain her health and to produce breast milk for her baby. Several mothers believed that it was appropriate to eat high-quality food that contains large amount of protein, iron, including fish and chicken but it should be in accordance with traditional practices.

#### **Dietary Practices: Hot and Cold Food**

Traditionally, postpartum women were advised to avoid ‘cold’ food in nature, such as vegetables and fruits. One mother mentioned she only consumed food offered at the maternity ward which is consistent with traditional practices.

*“I know I cannot eat something cold. I have grilled fish cooked with black pepper to help my recovery. I also drink coffee to warm my body.”*

However, majority of the respondents reported that the hospitals do not strictly follow the ‘hot and ‘cold’ food tradition. Sometimes they were served food not in accordance with the traditional practices. Majority of mothers in this study maintained their traditional dietary practices. Although they believed that they should eat large quantities of food during the postpartum food to help to rebuild their strength, promote their recovery, all the mothers had restrictions on what type of food they would eat. Malay mothers in this study believed that they should consume food in accordance with the hot and cold theory. After giving birth, mothers are considered to be in a ‘cold’ state and they should consume hot food. Snakehead (haruan) fish, anchovies cooked with black pepper, garlic and ginger are regarded as hot and thought to help recovery, encourage expulsion of lochia and stimulate lactation. Most of the vegetables and fruits such as cabbage, mangosteen and cucumbers were considered cold and were not consumed by the mothers.

Although they cannot fully name the exact food under the hot and cold category, all the respondents said that they consumed ‘hot’ or ‘warm’ food and avoided ‘cold’ food during the confinement period to restore their balance. One mother said:

*“I know I cannot eat something cold. I have hot rice, black pepper and ginger cooked with anchovies. I believed follow the traditional food taboos will help me to recover faster.”*

### **Follow Mother's Advice on Food Intake**

Mothers or mother in laws are sources of information for the new mothers especially regarding the do's and don'ts during the postpartum period. Majority of mothers interviewed did not have an in-depth knowledge on food categorised under the hot-cold theory. Mothers are often consulted for advice on the right type of food to consume. Majority of mothers also stated that they strictly followed their mothers' dietary advice.

*"My mother told me that I must eat hot food so that my blood will flow properly. I must avoid cold food because I lost blood from birth. If I eat cold food after birth, my blood would clog. I would be unhealthy and sick all the time."*

Although more than half of the mothers interviewed were working mothers, their adherence to traditional food practices indicates that they still follow cultural beliefs and practices of postpartum diet.

### **Prefer "Home Food"**

Majority of the mothers interviewed prefer to consume food brought from home and when asked why, they said that they believed that food prepared by their mothers followed the traditional postpartum food taboos and they can eat them without hesitation. One mother said:

*"My husband brought me the food from home. So, I don't eat the*

*hospital food as I am not sure of the kind of food they served."*

Majority of the mothers preferred to consume food from home instead of hospital food. They were very selective in choosing the food that they can consume. Most of the time, the food served was left untouched.

### **Suggestion for Hospital to Provide Well-Balanced Nutrition Food that is Consistent with the Traditional Practice**

All of the mothers interviewed believed that they needed a nutritional and well-balanced diet to help them to recover and maintain their health. However, the food served must be in accordance with the traditional dietary practice. The hospital can serve hot food that were traditionally eaten and which are well-balanced during the confinement period. Although, most of the cold food, such as vegetables and fruit were avoided, the mothers generally believed that vegetables and fruit were important as a source of nutrients. They believed that it was acceptable to select 'neutral' vegetables and fruit and to avoid vegetables and fruit that were cold. For example, according to one mother

*"Vegetable and fruits are good for my health...for my balanced diet. So, I chose vegetables and fruit that are 'neutral' such as 'mustard leaves (sawi), apples and orange (Sunkist)."*

### **Breastfeeding Practices and Public Breastfeeding**

It was not difficult to gauge the attitudes on and beliefs on breastfeeding. Working mothers opt to breastfeed until a certain period of time.

*“I plan to breastfeed for 3 months because I work. Breastfeeding can strengthen the bond between a mother and a child.”*

Mona, 33 years, military officer

*“I will breastfeed for full 6 months as my breast milk is insufficient.”*

Syazwani, 27 years old, housewife

Malay mothers acknowledge the benefits of breastfeeding and the role of the family who is supportive of breastfeeding.

*“My husband and his family are supportive of breastfeeding but they understand the demand of my job.”*

Mona, 33 years, military officer

The relationship between hot and cold foods with breastfeeding practices is visible in efforts to increase milk sufficiency.

*“I eat more vegetables and rice to increase my breast milk but the main challenge is insufficient milk.”*

Mona, 33 years, military officer

*“I believe in eating spinach and radish to increase my breast milk.”*

Syazwani, 27 years, housewife

Malay mothers are open minded when it comes to public breastfeeding.

*“There’s nothing wrong in public breastfeeding as there are special baby rooms to breastfed.”*

*“I have breastfed publicly before and I feel that there should be more support for it.”*

*“Public breastfeeding is usually shunned by public and many opt to breastfeed in private baby rooms.”*

Alia, 38 years, teacher

Malaysian mothers understand the value of breastfeeding but they face challenges such as breast swelling and insufficient breast milk. They often from their own mothers or hearsay of what hot and cold foods to eat and what not to eat during the postpartum period as well as during breastfeeding. There is a strong connection between hot and cold foods with sufficiency of milk. Breastfeeding creates a loving bond between mothers and baby which is also economical.

### **Baby Friendly Hospital Initiatives (BFHI)**

The mothers agreed government hospitals are baby friendly hospitals with written policies on breastfeeding. Nurses promote the benefits of breastfeeding and initiate breastfeeding about half an hour after delivery. Respondents of this study claimed that the hospital does not really practice

in-rooming. Babies were brought to their mothers for breastfeeding; the staff use formula milk to feed infants when they are experiencing health issues. Mothers agreed that the hospital staff and nurses educate them on breastfeeding techniques. Breastfeeding on demand is highly supported by nurses as infants are brought to their mothers during feeding time. Artificial pacifiers are not provided. Breastfeeding support groups in the hospitals though are available for first time mothers, the respondents claim they are unaware of their existence.

## DISCUSSION

Almost all Malay mothers in this study followed dietary or food prohibitions during the postpartum period. The results from this study suggest that traditional postpartum practices are still widely observed in Malay society, and thus confirm the findings of similar studies that have been conducted (Kaewsarn, Moyle, & Creedy, 2003; Yeh et al., 2013; Sein, 2013, Lundberg & Thu, 2011). The main reason for food avoidance was for the well-being of mothers and their new-born babies. Food classification was based on their belief system of hot-cold theory. They avoid cold and 'itchy' food and eat a lot of hot food such as pepper, rice and anchovies. Mothers in this study generally did not reject the well-balanced postpartum food but it must be in accordance with their traditional dietary practices. Although the hospital tried to serve a well-balanced diet that is consistent with the traditional dietary practices, there is still room for improvement. Mothers should be advised

on the type of fish and vegetables which are suitable and method of cooking it, so they will not hesitate to consume it.

Mothers in this study also relied on their mothers and mother in laws in choosing the right food to eat during the postpartum period. Postpartum beliefs and practices had been handed down to the women by their mothers, mother in laws or grandmothers. This is in accordance with concept of culture (Erickson, 2008), defined as learned, shared and transmitted knowledge of values, beliefs and life ways of a particular group that are generally transmitted inter-generationally and influence thinking, decisions and actions in patterned ways.

Mothers in this study also suggested the hospital menu must include 'neutral' fruit and vegetables in accordance with their traditional dietary practices.

## CONCLUSION

Malaysia has experienced rapid economic and technological development during the last decades. Western bio-medicine has influenced the country and quality of life has improved, and conditions of women have changed (Erickson, 2008). Although these changes may have impact on postpartum beliefs and practices, the beliefs in traditional dietary practices are ignored. They are still widely practised by the postpartum mothers.

In providing well-balanced nutrition to mothers, the hospital should take into consideration traditional dietary practices. The hospital can plan menus that are consistent with traditional dietary practices



without compromising the composition of well-balanced nutrient food to avoid wastage. Therefore, health-care professionals, policy makers, nutritionist need to be given exposed about cultural values in planning the dietary in the hospital.

Hot and cold foods that should be eaten during the postpartum period can vary according to each mother and is based on their knowledge from other family members. Data collected supports the humoral theory where Malaysian mothers take into consideration the types of hot and cold foods that they eat during the postpartum period and foods that promote lactation. Breastfeeding practices among Malaysian mothers show a sense of openness and willingness to share insights on the challenges and motivations they face as postpartum mothers. Public breastfeeding can be accepted by Malay mothers. Evidently, BFHI, with the efforts of the hospital's nurses and doctors plays an important role in encouraging mothers to fully participate in breastfeeding practices and techniques.

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## **Critical reading skills: A Survey of Postgraduate Students' Perspective of Critical Reading**

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### **ABSTRACT**

The aim of this article is to examine postgraduate students' critical academic reading skills. This study was inspired by the high attrition rates among postgraduate students although there is a significant increase in their enrolment. A total of thirty postgraduate students from social sciences and humanities background were surveyed and data were collected using questionnaires. The findings indicated that the postgraduate students have moderate readiness in utilising critical academic reading skills. Therefore, innovative approaches must be encouraged and implemented to improve critical reading skills among postgraduate students.

*Keywords:* Academia, critical reading skills, innovative approaches, postgraduate students, readiness

### **INTRODUCTION**

The demand for higher education has led to mushrooming of universities that offer a wide range of postgraduate programmes in different fields. Malaysia has embarked on

an expansion of higher education through the launch of the National Higher Education Strategic Plan (NHESP) Beyond 2020 and a programme for financing postgraduate studies entitled MyBrain15. Through both NHESP and MyBrain 15, Malaysia aims to produce a critical mass of 60,000 PhD scholars by 2023. However, to date, the country has yet to succeed in its effort due to the high attrition rate among its postgraduate students.

A recent case study of MyBrain15 revealed that the PhD completion rate for a public university in Malaysia after four years stood at 5% while 10% of

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postgraduate students had been downgraded to master degree level. The postgraduate students, as reported in Ismail, Abiddin and Hassan's (2011) study, also took a longer time to complete their studies, within 4.84 years, which exceeds the usual Graduate on Time (GOT) period of 4 years.

One of the reasons for the shortcoming is the student's limited academic literacy and research skills (Sidhu, Kaur, Fook, & Yunus, 2013). Baik (2008) notes that even in Australia, increased concern and attention were given to students' English language skills because many students have struggled to meet the demands of mainstream university courses. Watson and Reissner (2014) stress that the ability to read critically is the basis of independent thinking and the creation of knowledge necessary for the continuous improvement of professional and managerial practice. Therefore, students should be equipped with critical thinking and effective reading skills.

Reading, especially critical reading, has always been viewed as a challenging skill by many ESL learners. Sengupta (2002) opines that academic reading is purposeful and students need to undertake "critical reading of a range of lengthy academic texts for completing the study of specific major subject areas". Academic reading involves questioning and evaluating texts in particular statements and claims put forward by authors alongside identifying the strengths or weaknesses of the arguments. In order to evaluate the relevancy of the claims, students need to cite both primary and secondary sources that can be used

as references, arguments and guidance. Finally, critical readers must be able to evaluate and conclude the value of a text by looking into the robustness of the arguments and evaluating the evidence provided. The ability to read critically and funnel information is crucial for tertiary students because students who possess good critical reading skills are able to go "beyond the information given by asking questions, making hypotheses, seeking evidence, and validating assumptions" (Langer, 1990; Marshall, 2012). Hudson (2007) maintains that students exposed to critical reading skills would be able to identify and synthesise main points or to compare texts critically.

Critical reading is not only limited to understanding the text, but also to determine accuracy of facts (Ozdemir, 1997), and its interpretations (Bagcı & Sahbaz, 2012) through the process of assessing the opinions or knowledge (Candan, 2003). Critical reading has been defined as the ability to: (a) make judgements and inferences; (b) distinguish between facts and opinion; and (c) recognise the author's purpose or points of view (Darch & Kameenui, 1987). In short, critical reading is to think about the subject to move beyond what the text had concluded to the point of how the author reached that conclusion and the accuracy of the latter (Wheeler, 2007).

Kadir, Subki, Jamal, and Ismail (2014) stress that students would be able to analyse, synthesise and evaluate information in the text easily if they acquire critical reading skills from an early stage. In academic

reading, students need to engage actively with the text and apply critical reading strategies in order to comprehend and interpret the text and evaluate its relevance (Spack, 1993). Critical reading skills will increase students' capabilities in expressing their views and opinions. However, Wallace (2003) asserts that despite the importance of critical reading, it has not been taken seriously.

Flowerdew and Peacock (2001) highlight that besides macro reading skills, students need to be equipped with micro-skills such as the capability: (a) to create logical relationships, definitions, generalisations, examples, explanations and predictions; and (b) to distinguish fact from opinion. Hence, critical reading is an activity that requires critical and active thinking. Dreyer and Nel (2003) noted that many students underestimated the challenges of pursuing postgraduate studies. With limited critical reading abilities, their academic journey is an uphill task. Sidhu et al. (2013) reported that limited reading, writing and research skills among post graduate students in Malaysia is a main concern among the latter and their supervisors.

Crismore (2000) discusses her five-year experience teaching in a Malaysian university and deduces that the majority of tertiary students are not wholly prepared in utilising their reading skills. Most Malaysian students, according to Koo (2003), are afraid to practice critical reading skills due to: (a) fear of loss of face should their views are found to be incorrect; and (b) fear of having different views from the majority.

Levine, Ferenz and Reves (2000) examined the relationship between students' perception and their development of critical reading skills in an IT-related environment. Progress reports and teachers' logs were analysed and the finding marked an increase in the amount of reading accomplished in class because the students were confident in reading critically in a computer-networked environment after they have self-evaluated their critical reading skills. The study also suggests that students' self-perception is an important component in determining their critical reading ability. In other study, Gorzycki, Howard, Allen, Desa, and Rosegard (2014) examined students' performance in critical reading exercises in order to understand student's perception and attitude towards critical reading. Twenty-three students participated in the survey and 848 reading tests were collected. Teachers' perceptions on the students' level of critical reading skills were also measured. The analyses from both surveys and test indicated that the students have overestimated their critical reading academic abilities because the performances from the tests did not reflect their positive self-perception.

Mohd Zin, Wong and Rafik-galea (2014) examined the level of critical reading skills among tertiary students specifically in the areas of: analysis, evaluation and understanding. A reading comprehension test was administered to both the low proficiency and high proficiency group. The results showed that though the students had the ability to understand the text, they

lacked the skills to analyse and evaluate it. This implies that students face difficulties to critically understand the writer's intention. The main concern was that they could not read the text critically such as "reading between the lines" or "read for deeper meaning". In other word, the students were able to read superficially but not critically.

The importance of critical reading skills among postgraduate students have been stressed in order to ensure their academic success and prepare them for future employment. This is in line with the key thrusts of the Malaysian Higher Education Action Plan of 2011–2015 (MoHE, 2011) that aim to produce first class human capital, employable graduates and knowledgeable workers. The development of critical literacy among students has been crucial following the recent move by the Malaysian Higher Education Ministry to implement the National Education Blueprint to innovate the education system (announced in September 2012), in the hope to ensure that Malaysian graduates are employable (Aisyah, 2012).

It is also important to assess postgraduate students' perspective on their critical reading skills because their view would play an important role in the completion of their postgraduate studies. Therefore, the students' perspective of critical reading skills must be determined and investigated. If not, they would become passive learners who are afraid to ask question and offer dissenting views. Critical reading skills is also outlined in the Malaysia Education Blueprint 2015–2025. Therefore, more

research is needed to better situate the level of critical reading skills among postgraduate students. This paper will investigate students' perspectives of critical reading skill which is highly dependent on their attitudes, commitment and current level of critical reading skills.

## METHODS

The pilot study was conducted at a graduate school in a public university in Malaysia. Data were collected through questionnaires. The target population was thirty social science postgraduate students and they were given pseudonyms as R1 until R30.

The questionnaire consisted of three sections: the first section (Section A) explores the demographic variables of the students and the second section (Section B) consists of 39 items related to the students' frequency of usage of critical reading skills. Responses are measured with a five-point Likert scale consisting of "1" (*very limited readiness*), "2" (*limited readiness*), "3" (*moderate readiness*), "4" (*high readiness*), and "5" (*very high readiness*). The last section (Section C) comprises open-ended questions for respondents to provide detailed explanations about their perceptions and challenges that they have faced regarding critical reading. Reliability testing was conducted for each section and the Cronbach's Alpha coefficients are reported in Table 1. Overall, the scales showed good internal consistency. As such, no items were deleted from the questionnaire.

Table 1  
Cronbach's Alpha coefficients for lower-order thinking skills and higher-order thinking skills

Sections	Number of Items	Cronbach's Alpha
Lower-Order Thinking Skills		
Knowledge	4	.937
Comprehension	10	.945
Application	6	.901
Higher-Order Thinking Skills		
Analysis	7	.938
Synthesis	4	.916
Evaluation	12	.915

## RESULTS AND DISCUSSION

The following section presents the findings of the study. Table 2 below shows the demographic profile of the respondents. The response rate was 100% as all postgraduate students responded to the questionnaire. Out of the 30 respondents, 27 were master degree students while the others were doctoral students.

This section presents the postgraduate students' perceptions of the six skills

mentioned in Bloom's Taxonomy namely: (1) knowledge; (2) comprehension; (3) application; (4) analysis; (5) synthesis; and (6) evaluation. In this paper, these skills are divided into two categories: lower-order thinking skills and higher-order thinking skills. Knowledge, comprehension and application are categorised as lower-order thinking skills while analysis, synthesis and evaluation are categorised as higher-order thinking skills.

Table 2  
Mean score of postgraduate students' lower-order thinking skills

No.	Items	Mean	SD
SECTION 1: KNOWLEDGE			
1	I can recall the information in a text	3.433	0.971
2	I am able to identify specific terms in a text	3.433	1.165
3	I can identify main ideas in a text	3.433	1.194
4	I can identify supporting details in a text	3.533	1.074
OVERALL MEAN		3.458	1.101
SECTION 2: COMPREHENSION			
1	I read and try to understand the title of a text	3.667	1.398
2	I can skim and scan quickly through long and complex texts, locating relevant details	3.200	1.031
3	I can describe the main ideas in a text	3.467	1.042

Table 2 (continue)

4	I can describe supporting details in a text	3.333	0.959
5	I can derive the meaning of words, or sentences from the context	3.367	1.159
6	I am able to understand linear and non-linear texts	3.233	0.858
7	I am able to recognise a paraphrase	3.133	1.074
8	I can extract specific information from a text	3.433	1.135
9	I can understand the relationships	3.600	1.070
	i. Within sentences	3.533	1.106
	ii. Between sentences	3.667	1.398
	OVERALL MEAN	3.421	1.112
	SECTION 3: APPLICATION		
1	I can predict the outcomes of an article	3.067	1.048
2	I can apply existing knowledge to the reading process	3.267	1.285
3	I can apply personal experiences to the reading process	3.533	1.106
4	I can apply a concept to other situations	3.300	0.915
5	I can interpret linear and non-linear texts (graph/tables/charts)	3.433	1.135
6	I can apply the idea in the text to other contexts	3.467	1.008
	OVERALL MEAN	3.345	1.083

Table 2 shows that the postgraduate students display a moderate level of readiness in utilising the skills in the first section (M=3.458, SD=1.101) (knowledge). In particular, the students exhibited moderate readiness in: (a) recalling the information in a text, (M=3.433, SD=.971); (b) identifying specific terms in a text (M=3.433, SD=1.165); and (c) identifying main ideas in a text (M=3.433, SD=1.194). The students were also found to be more confident in identifying supporting details in a text (M=3.533, SD=1.074). In the open-ended section, a majority of the respondents pointed out that the first skill is the easiest. R1 stated, “*Knowledge is not that difficult since it is already embedded in myself,*” and R30 stated, “*This skill only requires me to*

*recall and memorise which do not involve any thinking.*”

The results in Table 2 also indicate that the postgraduate students display a moderate level of readiness in applying the skills in the second section, Comprehension (M=3.421, SD=1.112). In particular, they were relatively weaker in recognising a paraphrase when reading an academic text (M=3.133, SD=1.074). They also lacked readiness in skimming and scanning long texts in order to locate relevant details (M=3.200, SD=1.031). However, as Table 3 shows, the students were confident in understanding the relationship within sentences (M=3.533, SD=1.106) compared to between sentences (M=3.667, SD=1.398). In the open-ended section, they added that



they find it difficult to connect the meaning of sentences in a paragraph hence found the task discouraging. In Comprehension, students are more confident in reading and understanding the title of the text (M=3.667, SD=1.398).

The results also show that the postgraduate students also displayed a moderate level of readiness in practicing the skills in Application (M=3.345, SD=1.083). The results pointed out to the fact that students were the least ready and confident

in predicting the outcome of an article (M=3.345, SD=1.0). In contrast, they appeared to be more confident in applying their personal experiences to the reading process (M=3.533, SD=1.106). This ability has allowed them to connect and understand in a more in-depth manner. In the open-ended section, R12 noted that this skill was the hardest to acquire. R30 stated, "*This skill is very complex because this skill is what you need in real-life situations.*"

Table 3  
Mean score of postgraduate students' higher-order thinking skills

No.	Items	Mean	SD
SECTION 4: ANALYSIS			
1	I can distinguish facts from opinions	3.333	1.093
2	I can differentiate the relevant points from the irrelevant	3.267	1.311
3	I can make inferences	3.467	1.008
4	I can separate the idea into its components parts	3.633	0.890
5	I can identify cause and effect in a text	3.433	1.165
6	I can analyse the suitability of references in a text	3.600	1.329
7	I can identify comparison and contrast in a text	3.633	1.129
	OVERALL MEAN	3.481	1.132
SECTION 5: SYNTHESIS			
1	I can relate the ideas and concepts		
	i. Within a paragraph	3.633	0.964
	ii. Between paragraphs	3.533	1.008
2	I can follow the development of a point in a text	3.667	1.028
3	I can summarise information after reading a text	3.533	1.224
	OVERALL MEAN	3.592	1.056
SECTION 6: EVALUATION			
1	I can appraise information in a text	3.400	1.070
2	I can make judgments on the arguments or ideas when I read a text	3.400	1.133
3	I can evaluate the strength of an idea in a text	3.367	1.033
4	I can evaluate the weakness of an idea in a text	3.367	0.964
5	I can evaluate the relevancy of an idea in a text	3.333	1.155
6	I can draw conclusion after reading a text	3.633	0.999

Table 3 (continue)

7	I first evaluate answer choices before reading a text	2.900	1.155
8	I can recognise and interpret writers'	3.333	1.184
	i. Views in a text	3.400	1.003
	ii. Attitudes in a text	3.433	1.073
	iii. Intentions in a text	3.533	0.937
9	I am able to discern the organisation of a passage	3.433	0.935
10	I can assess the sources of a text and determine the trustworthiness of the sources.	3.400	1.070
	OVERALL MEAN	3.379	1.055

Based on the findings shown in Table 3, it is revealed that the postgraduate students also displayed a moderate level of readiness in utilising the fourth skill (analysing) ( $M=3.481$ ,  $SD=1.132$ ). In particular, the students were found to be the most confident in separating ideas into components ( $M=3.633$ ,  $SD=.890$ ). The table also highlights that the students have had difficulty in distinguishing facts from opinions ( $M=3.333$ ,  $SD=1.093$ ) and differentiating relevant ideas from the irrelevant ( $M=3.267$ ,  $SD=1.311$ ). R23 added, "*Analysis requires critical thinking which I find challenging*" and R14 further stated that '*analysis needs a sharp analytic thinking in order to gain the best results and I am often scared of analysing.*' These show that the postgraduate students tend to shy away from analysing because they were afraid their analysis would be inaccurate or they found the task too challenging. These findings are similar to those of Mohd Zin et al. (2014) whom the students involved in their study had experienced difficulties in analysing texts

The results in Table 32 also indicated that the postgraduate students displayed a

moderate level of readiness in applying the skills in Synthesis ( $M=3.592$ ,  $SD=1.056$ ). They are moderately ready in relating ideas and concepts within paragraphs ( $M=3.633$ ,  $SD=.964$ ) and between paragraphs ( $M=3.533$ ,  $SD=1.008$ ). It is also illustrated in Table 4 that the postgraduate students have moderate readiness in summarising information after reading a text ( $M=3.533$ ,  $SD=1.224$ ). Interestingly, Table 4 reveals that the students are more confident in following the development of a point in a text ( $M=3.667$ ,  $SD=1.028$ ). R13 and R21 chose synthesis as the most difficult skill to practice because they believe the skill forced them "to create something new" which they were often not sure about. In the same vein, R25 added that the skill of synthesising requires "in-depth thinking and it's a time-consuming" and thus was a difficult task for him/her to complete.

The results in Table 4 shows that the postgraduate students have a moderate level of readiness in evaluation ( $M=3.379$ ,  $SD=1.055$ ). The student appeared to have limited readiness before reading a text ( $M=2.900$ ,  $SD=1.155$ ). In contrast, the results illustrates that the postgraduate

students are more confident in drawing conclusions after a text ( $M=3.633$ ,  $SD=.999$ ). This skill appears to be the hardest to acquire according to majority of respondents. R20 has succinctly described evaluation as “*difficult because we need to critically think in order to identify the relevancy, weakness and strength of the ideas in a text.*”

## CONCLUSION AND LIMITATION

This study is not without limitations. It is a pilot study that involved a small sample size, and thus, the findings cannot be generalised. The data represent students' perspective of their critical reading skills and their readiness for these skills. The postgraduate students were shown to have generally moderate readiness towards critical reading. The finding is consistent with those of earlier studies that highlighted students were not prepared for critical reading for their postgraduate studies. Given this point, it is crucial to foster critical reading skills among postgraduate students because these skills can assist them to be capable workers hence the achievement of the aspiration in the Malaysian Education Blueprint. However, it needs to be pointed out that this study did not measure the students' performance, therefore the relationship between the students' perspective and their performance cannot be measured. It is recommended that future research investigates the perspective of a larger sample of postgraduate students and include more doctorate students. It is also recommended for future studies to incorporate the Common European Framework of Reference for Languages

(CEFR) in determining students' critical reading abilities.

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## **Service Sabotage by Front Line Employees: A Study of Antecedents and Consequences**

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### **ABSTRACT**

This paper examines the influence of five antecedents of service sabotage by frontline customer-contact personnel. Using a survey-based approach, the authors collected data from 150 respondents working in the front line service settings. Regression analysis showed that only employees' risk-taking proclivity and their perceptions of the extent of surveillance were significant predictors of sabotage. Other antecedents (employees' need for social approval, perceptions of the extent of employee-customer contact and labour market fluidity) were not significant contributors. This study will help the services sector to minimise deviant behaviour at the workplace.

*Keywords:* Deviant behaviour, ethical behaviour, front-line employees, Malaysia, service sabotage

### **INTRODUCTION**

The behaviour of frontline employees is often equated with their service quality and in turn company profitability (Sergeant & Frenkel, 2000). The incidence of sabotage is not as uncommon as many would think;

it happens on a daily basis and in different settings (Harris & Ogbonna, 2002, 2006). It is difficult to quantify the effect of sabotage in the service industry but it is undeniable that it affects company's growth (Harris & Ogbonna, 2006). The behaviour is detrimental to the long-term survival of the company (service quality and brand image are compromise) and should be seriously addressed.

This paper investigates individual characteristics of service sabotage behaviour by examining five antecedents: the extent of employee to customer contact, risk-taking proclivity, need for social approval, labour market fluidity and the extent of

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surveillance. The paper concludes with discussion on managerial implications and suggestions to address this issue.

### **Literature Review**

Sabotage is explicitly focused on doing harm and more “subtle and covert” forms of retaliation (Ambrose, Seabright, & Schminke, 2002). Harris and Ogbonna (2002) defined service sabotage as organisational behaviour intentionally planned to negatively affect customer service. The aim is to inflict maximum damage to the business and property. Thus, this deviant behaviour is harmful to the company and affects their work performance. Abdul Rahim (2008) opines that sabotage behaviour deviates from company’s goal as deviant employees intentionally provide inferior service to the customer. This behaviour is often branded to be ‘deviant’ and the employee considered a “service saboteur” (Patterson & Baron, 2010). Southey (2010) refers to this as an aberrant activity, premeditated and out-of-norm.

### **Hypotheses Development**

Risk-taking proclivity is defined as an individual addiction or “desire for taking risks or being adventurous” (Harris & Ogbonna, 2006). Skeel, Neudecker, Pilarski, and Pytlak (2007) further define risk-taking as the balancing of potential rewards and losses, and the relationship between short-term and long-term consequences. Company staff intentionally involved in service

sabotage do so out of frustration, boredom and also to break out of the mundaneness of their work. They would intentionally stray from the company’s service procedure and policies (Harris & Ogbonna, 2009). Some employees have innate characteristics as thrill seekers. Although seeking excitements need not necessarily be harmful to customers, it nevertheless affect the latter (Harris & Ogbonna, 2009). An adverse evaluation by the customer would surely affect overall image of the organisation. Harris and Ogbonna (2006) proposed that the greater the risk-taking proclivity of service employees, the greater the likelihood of service sabotage. Thus, the following hypothesis is proposed.

*Hypothesis 1: The higher the risk-taking proclivity, the higher will be the effect on service sabotage.*

Service employees are usually organised in groups and have deep relationship with their colleagues; thus, the need for social approval from their colleagues. Fisher and Smith (1993) opined that desire to be accepted by others and to belong to a group will influence the employee’s action. Those who are better at controlling their emotions will receive more social support from their supervisors and colleagues. Therefore, social approval encourages employees from doing things that are not socially acceptable in the workplace. Staff members who do not follow the group norms may become unpopular and side-lined by their peers (Cialdini, 2007; Southey, 2010). This may

cause tension and unpleasantness at the workplace and which may prompt acts of sabotage. Thus, the following hypothesis is proposed.

*Hypothesis 2: The higher the need for social approval, the higher will be the effect on service sabotage.*

Harris and Ogbonna (2002) reported that many frontline service employees are aware of the surveillance imposed by the company and the purpose for doing so is to control the workplace behaviour. Previously, monitoring capabilities were limited as the company could only do so through recording and observation. With the advancement in technology, electronic surveillance has now become the norm in many workplaces. Increasing number of organisations believe that employees need to be closely monitored. Dorval (2004) found that close monitoring might be detrimental as many employees feel that it is an invasion of their privacy and that they no longer have their individual space. This has been further confirmed by VorVoreanu and Botan (2001) that there is additional stress imposed on employees due to the lack of privacy and close surveillance. Decision making are controlled because it needs to be accepted by their employers and this limits the employee's self-improvement. Employees that are controlled too closely could cause nonconformity or deviant behaviour (Wallace, Chernatony, & Buil, 2011). On the other hand, it was also discovered that companies that developed

and increase their surveillance system successfully will be able to reduce employee deviant behaviour and sabotage (Harris & Ogbonna, 2009). These arguments form the basis of the following hypothesis:

*Hypothesis 3: The higher the perception of the extent of surveillance, the lower will be its effect on service sabotage.*

Labour market fluidity is when employees believe that there is still abundance of employment opportunities outside the firm (Harris & Ogbonna, 2006). Usually employees will find reasons to stay in the organisation, either because of the individual's career dispositions or due to certain organisational characteristics (Harris & Ogbonna, 2002). Employees who are committed to their organisation are less likely to be involved in service sabotage. The person's perception of his ability to find a new employment is crucial in this respect (Berntson, Sverke, & Marklund, 2006). Education and work experiences will increase the person's chances of getting employed. Harris and Ogbonna (2002) examined individuals who perceived high possibility of being employed and found as the level of service sabotage increases, there is increased possibility that such a deviant behaviour would be explicitly manifested. Therefore, hypothesis 4 is proposed.

*Hypothesis 4: The higher the perception of labour market fluidity, the higher will be the effect on service sabotage.*

When the job requires constant interaction with customers (Harris & Ogbonna, 2006) such employees are the 'face' of the organisation, representing the company. Many managers rely on their frontline staff personal contact and dealing to influence their clients (Yee, Yeung & Cheng, 2011). On the short-term basis, these employees might face emotional distress such as anxiety, tension, frustration, resentment and annoyance. If left unchecked, it may cause them to seek revenge or engage in sabotage behaviour as payback. Harris and Reynolds (2003) revealed that service employees experience first-hand some form of dysfunctional customer behaviour regularly. This aberrant customer behaviour is also known as "problem customers" and "consumer misbehaviour". Jaarsveld, Walker and Skarlicki (2010) found that employee' job strains and emotional fatigue mediate the relationship between customer rudeness and employee incivility. This, if left unattended, may lead to sabotage. The more exposed the employees are to customer misbehaviour, the more likely their acts will be retaliatory (Jaarsveld et al., 2010). Based on this explanation, hypothesis 5 is proposed.

*Hypothesis 5: The higher the perception of the extent of employee-customer contact, the higher will be its effect on service sabotage.*

## METHODS

A total of 200 self-administered questionnaires were distributed using

convenient sampling. The target population comprises front-line service employees who work within Klang Valley. Data was collected from 150 respondents, representing a response rate of 75%. Females accounted for 55.6% of the respondents. About 59.3% of the respondents were aged of 25 and below followed by those in the age group 26-35 accounting for 34.7% of total respondents. The respondents came from various industries with top three from retail (20%), hotels/restaurants (13%) and education (9%).

The survey instrument of service sabotage (9 items), risk-taking proclivity (7 items), need for social approval (5 items), the extent of surveillance (4 items), labour market fluidity (4 items) and employee-customer contact (4 items) were adopted from Harris and Ogbonna (2006). All questions were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), where respondents indicated their degree of agreement or disagreement with a series of statements. The Cronbach alpha reliability for all antecedents and dependent variables ranged from 0.759 to 0.877. The results indicated a high degree of internal consistency which is line with Hair, Money, Samouel and Page (2007) 0.70 cut-off point.

## RESULTS

The relationship between the five antecedents and service sabotage were determined through a multiple regression analysis (see Table 1). It is clear and positive relationship between risk taking proclivity and service



sabotage. Additionally, there was a negative association between frontline employee surveillance and service sabotage. Therefore, H1 and H3 are supported. As for H2, H4 and H5, the results indicated no significant relationship between social approval, labour

market fluidity and employee customer contact with service sabotage ( $p > 0.05$ ). The value of R2 indicated that 10.8% of the independent variables contributed to the dependent variable of service sabotage.

Table 1  
*Regression analysis between the five antecedents and service sabotage*

Independent variables	Dependent variable (Service Sabotage)			
	Beta	t	Sig.	Outcome
Risk Taking	0.281	2.844	0.005	Supported
Social Approval	0.034	0.345	0.730	Not Supported
Frontline Employee Surveillance	-0.223	-0.209	0.024	Supported
Labour Market Fluidity	0.059	0.051	0.617	Not Supported
Employee Customer Contact	0.061	0.053	0.635	Not Supported
R2			0.108	
F			3.408	

## DISCUSSION

The results show perceptions of surveillance and risk-taking proclivity are significant in promoting service sabotage. Thus, organisations must select the 'right' type of employees as well as implement relevant control mechanism in monitoring their frontline service staff. Human Resource managers need to take heed of this during recruitment, orientation, training and appraisal to reduce the possibility of deviant behaviour and by identifying those who are more inclined to high and risky behaviour. The successes of an organisation is tied to the performance of its frontline employees. An external monitoring system is vital as employees with high risk-taking behaviour

are usually more difficult to manage as they are prone to disregard the firm's rules and regulations which do not sit well with them.

To handle staff that are most likely to sabotage their work, direct control to minimise this via electronic monitoring and surveillance maybe helpful. Some of the measures might include electronic surveillance such as CCTV and close managerial supervision. Companies might be able to diagnose various forms of dysfunctional behaviour among the staff when these monitoring and controlling are done. Correcting deviant behaviour via these early measures may lead to service improvement and employee job satisfaction.

## CONCLUSION

The regular contact between service employees and customers has brought into sharp focus the role of the former in preserving the reputation of their companies and in turn contribute to their growth. Frontline customer contact employees are considered as important connector between the company and their customers. The service rendered by these employees will affect customer perception of service quality as well as their evaluation of the company's brand image. Due to the importance placed on frontline employees, companies need to ensure that their employees are able to deliver excellent service. Managers also need to be aware that there are differences in customer expectations and perceptions of what good services are. Therefore, they will surely need to lead by example as well as provide appropriate training and mentoring to all the staff in anticipation of the increasing demand for quality service.

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## **Disputing Irrational Beliefs Technique to Develop Female Adolescent Self-Esteem**

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### **ABSTRACT**

This research was aimed at examining the effectiveness of disputing irrational beliefs technique in developing self-esteem of female adolescents. It was a single case study conducted on 13 year old children. Using State Self-Esteem Scale for descriptive analysis while verbatim transcript, observation and irrational belief technique were utilised to identify the symptoms of low self-esteem. The result showed healthier self-esteem based on belief, behaviours, emotions and body state.

*Keywords:* Female adolescent, irrational beliefs technique, self-esteem

### **INTRODUCTION**

During adolescence, self-esteem is greatly challenged and this can hinder identity formation process (Baumeister, 1998; Santrock, 2011). The study by Robins, Trzesniewski, Tracy, Gosling, and Potter (2002) found that the level of self-esteem was at the lowest during adolescence.

Overall, self-esteem is at its highest in childhood. However, it declines sharply after that, namely from adolescence to college period and plateaus later on. Among Malaysian adolescents (13 to 16 year olds), 61.2% of the participants reported to have low self-esteem (Uba, Siti, Rumaya, & Mansor, 2010). The results thus indicate a need for intervention among adolescents, especially during this transition period.

Empirical studies showed a more worrying sign among female adolescents, their self-esteem is lower than their male counterpart during the transition from childhood to adolescence (Sherina et al., 2008; Mahfar, Amat, Sidek, & Wan Marzuki, 2014). This is very alarming especially since the facts are long known

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but limited interventions were provided to female adolescents. Research also shows various negative impacts of low self-esteem during adolescence that could last a lifetime (Hamidi & Zeinab, 2010; Moksnes & Espnes, 2013). Despite these alarming effects, there is still lack of concrete and empirical data to verify effective technique to overcome low self-esteem among adolescents in Malaysia (Siti, Rumaya, Mansor & Uba, 2009; Mahfar, Amat, Sidek, & Wan Marzuki, 2014). Steps have to be taken to overcome low self-esteem especially among female adolescents to ensure they are not psychologically damaged.

Disputing irrational beliefs technique was devised by Albert Ellis who was also the founder of Rational Emotive Behavioral Theory (REBT). Disputing irrational beliefs technique is based on the assumption that emotions and behaviours result from cognitive processes (belief system). The belief system becomes irrational when thoughts are distorted, causing emotional discomfort. Irrational thinking derived from cognitive processes control the feelings and also their responses. It is highly possible for one to modify such thought processing

to achieve desired feeling and behaviour. How an individual think is determined by what he or she feels. Hence, the emotional disturbance (consequences) is not caused by what has happened (activating event) but it is the belief system that one has. The technique is highly structured, goal oriented and evidence-based to treat problems that might interfere with one's day to day functioning. The focus of the disputing irrational beliefs technique is to work on the cognitive processes which shape the belief system instead of changing the expression of behaviour and feelings (Santrock, 2011; Hamidi & Zeinab, 2010). Thus, irrational belief is the root cause of emotional disturbance which cause low self-esteem. In order to change the irrational belief to a rational one, disputing irrational belief technique is utilised. Disputing is a scientific method and involves a close examination of specific thoughts and beliefs of the individual to determine the extent to which they are true with factual evidence to support, logical and helpful leading to goal directed feelings and emotions (Figure 1). Prior researches have proven the effectiveness REBT towards various psychological problems (Obiageli, 2015;

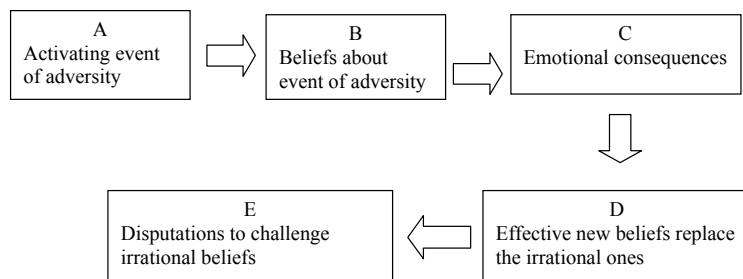


Figure 1. Disputing irrational beliefs process

Banks, 2011). Therefore, the aim of this study is to identify the effectiveness of disputing irrational beliefs technique towards low self-esteem in female adolescents.

## METHODS

This is a single case study. Purposive sampling method was used to select the sample based on the secondary school administrators' recommendation of 10 female students suffering from low self-esteem (the administrators selected them based on their symptoms and behaviours displayed in school). The selected students were assessed using SSES (State Self-Esteem Scale) in a group setting and students with the lowest score was chosen as the research sample. Parental and sample consent to receive counselling were obtained. The respondents are females aged between 13 and 17 and studying in a secondary school and able to read English language. The respondents were neither under doctor's supervision for mental disorder nor under any therapy.

Data was obtained from SSES, transcripts and observation during counselling sessions. A 20-item like type scale was used to measure momentary changes of individual self-esteem at a given point in time based on: (1) Performance; (2) Social; and (3) Appearance.

The research design includes six counselling sessions using REBT as an intervention to develop self-esteem. Each of the counselling session with the sample was audio-taped with the consent of the sample. The counselling sessions were mainly in

Mandarin but were later translated into English using mobile application software named English Mandarin Dictionary (1.4.7.1) “英语词典 Yīnghàncídiǎn” (Copyharuki, 2015). Due to issue of confidentiality, sample's name was replaced with CC in the transcript.

The respondent's behaviour, emotions, and body state using mental status examination format were recorded after each counselling session. The mental status examination format consists of appearance, speech, mood and thought.

## Case Conceptualisation

**Background of Sample.** The respondent is 13 year old female Chinese students currently studying in a public secondary school in Penang, Malaysia. Her mother tongue is Mandarin and she has a moderate understanding of English language. Hailing from low income family, her parents have been separated since she was 3 and at present she stays with her mother who works as a cook. Her mother works from 4pm to 11am. Therefore, the time spent with the mother is very limited. Prior to the study, sample did not report any recent medical condition.

**Presenting Case.** The client (used interchangeably with the term respondent and sample) had requested to stop schooling. Her teachers described her as slow, timid, and quiet. She was often almost invisible in class because of her petite size and silence. Always a loner, she talked only when necessary. Teachers complained that she was

a slow learner and took too much time to complete her homework. There were a few occasions where she had an outburst in class and started scolding other students. When she walked, she often avoided eye contact. Her tone of voice was extremely soft and slow and she sometimes stammered when speaking. Outwardly, she looked clean and neat though she had a strong body odour.

Before intervention, CC was very reluctant to attend school because her classmates were always teasing and bullying her, causing her sleepless nights and she often cried. The thought of being bullied again was too much for her to bear. In class, she could not concentrate on her lessons because she felt her move was being watched and made fun. Prior to intervention, the respondent's total self-esteem score using the SSES was 48/100 (Performance: 16/35, Social: 17/35 and Appearance: 15/30)

**Actual Case.** The reason the client was asked to attend a counselling session was because she had refused to come to school. Client mentioned that she had difficulty catching up with her computer lessons. She gave up learning because she did not understand her subject and her classmates were not helpful. She felt stupid aggravated by the fact that she could not afford a computer. She felt afraid, helpless and alone in the situation. Another issue was her mother smoking habits. She had an irrational expectation that her mother must not smoke. Due to such expectation, she was ashamed to let others know about her mother. In addition, she feared her mother passed away due to her smoking habit. She believed that she could not continue living without her mother. This caused her to feel very frightened and unhappy, thus, she would constantly check on her mother and nagged at her.

Table 1  
*Treatment procedure*

Pretest – State Self-Esteem Scale (SESS)		
Session 1	Building rapport	Pre-test 1
Session 2	Explore Issue and goal setting	Post-test 1
Session 3	Intervention: Disputing Irrational Belief	Post-test 2
Session 4	Forming New Belief	Post-test 3
Session 5	Reevaluation of New Belief	Post-test 4
Session 6	Self reflection and termination	Post-test 5

**RESULTS AND DISCUSSION**

Descriptive analysis of SSES post-test result was collected six times after every counselling session. Post-test was

administered after every counselling session as SSES has the sensitivity to track the temporary self-esteem fluctuation through the respondent's self-evaluation.



Table 2  
Comparison of pre-and post-test result of SSES total score

Test	Total SSES	Total Score Difference	Percentage Difference
Pre-test	48	-	-
Post-test 1	51	+3	+3%
Post-test 2	55	+4	+4%
Post-test 3	52	-3	-3%
Post-test 4	61	+9	+9%
Post-test 5	58	-3	-3%

\*Total Score for SSES is 100

Table 2 and Figure 2 shows a comparison of pre-and post-test results. The raw score shows that client's score of self-esteem during pre-test for SSES (score-48) and which indicated a steady increase from the post-test 1 (score-51) and post-test 2 (score-55). However, in post-test 3 after the counselling session where disputing irrational belief technique was emphasised,

there was a slight decrease in score to 52. One the other hand, post-test 4 score shows a sharp increase to 61. It was a 9% increase of total SSES compared with post-test 3. Post-test 4 recorded the highest total SSES the client achieved throughout the treatment. For post-test 5, the score decreased by 3%. The total score was 58. The score plateau remained the same in post-test 6.

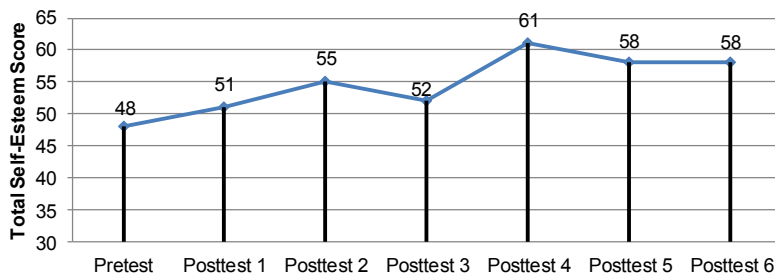


Figure 2. Pre-test and post-test score for self-esteem

Table 6 and Figure 5 show the score progression in the subcomponent and total score of the pre and post-test SSES result. In SSES, there are three subcomponents: performance, social and appearance self-esteem.

Table 6 and Figure 5 show the score progression in the sub-component (performance, social and appearance self-esteem) and total score of the pre and post-test SSES result. After the intervention, performance self-esteem score increased

from 16 to 22. Social self-esteem score increased from 17 to 19. Appearance self-esteem score increased from 15 to 17. The total pre-test self-esteem score was 48 and it increased to 58 after intervention.

Table 3  
Comparison of pre & post-test result of SSES subcomponent and total score

SSES Subcomponent Score	Pre-test	Post-test 1	Post-test 2	Post-test 3	Post-test 4	Post-test 5	Post-test 6	Score Difference (Pre-test&Post-test 6)	% Score Difference (Pre-test & Post-test 6)
Performance	16	21	22	19	21	21	22	6	17.14
Social	17	16	17	15	20	19	19	2	5.71
Appearance	15	14	16	18	18	18	17	2	6.67
Total	48	51	55	52	61	58	58	10	10

Thus, performance self-esteem not only had the highest increase by 17.14% but also scored the highest which is 22, followed by appearance self-esteem (score 17) and social self-esteem (score 19) with an increase of 6.67% and 5.71% respectively. As for the total score for SSES, it was 48 in pre-test and 58 in post-test 6.

Figure 3 shows a clear development of each self-esteem subcomponent score according to the test conducted. Performance self-esteem score started with a steady increase form pre-test to post-test 2 but dropped 2 scores in post-test. Later, performance self-esteem begins to regain

momentum to progress from post-test 3 to 6 (score 19 to 22). For social self-esteem, the score is constantly fluctuating with a drastic leap from 15 to 20 at post-test 4. However, overall social SSES from pre-test to post-test 6 shows improvement of score 2. Performance self-esteem and social self-esteem score graph shows similar pattern and social self-esteem is consistently lower than performance self-esteem. Post-test 1 of appearance self-esteem score slightly decreased compared with pre-test score, but it steadily increased to post-test 3. From post-test 3 to post-test 5, appearance self-esteem score remained stagnant and finally decreased 1 score in post-test 6.

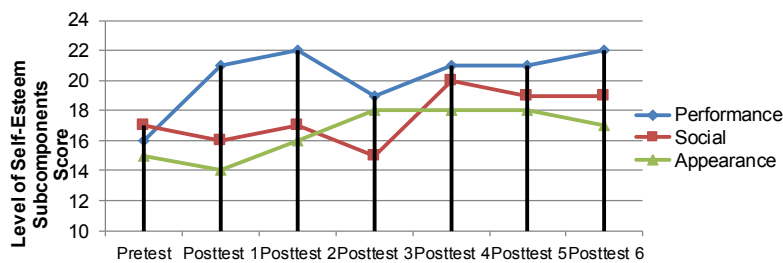


Figure 3. Pre-test & post-test for SSES sub-components score

Despite the fluctuation of line graphs presented in Figure 1 and Figure 2, the results showed an increasing trend for total and each subcomponent score of SSES between pre-test to post-test 6. It can be summarised that SSES was able to measure the differentiation in the level of self-esteem and also the effectiveness of disputing irrational belief technique. Although the descriptive analysis result of client was still below the average score of the female population, the SSES score shows progress in client's self-esteem. Thus, disputing irrational beliefs technique is effective to build client's self-esteem through descriptive measurement.

The content analysis of the effectiveness of disputing irrational beliefs technique is presented based on the issues mentioned by client, i.e. performance in computer class and mother's smoking habit. The effectiveness of disputing irrational beliefs technique is projected in the new belief, behaviour, emotions as well as body state of the client.

With regard to the issue of performance in computer class, client began to discover the joy of learning computer and see it in a more positive perceptive. Her belief system towards computer classes has changed and she believed computer lessons are fun and the client wished the lesson to be longer as mentioned in the transcript below:

CC: *Computer lessons are fun.* I can learn the different software such as Word... (Session 4, Reference line 1341)

CC: It felt good... Previously, I have always wanted to escape the lessons...But now... now... I thought to myself, *why the computer classes are so short?* (Session 4, Reference line 1315-1317)

The behaviour of the client during computer class has changed. She has become more courageous, confident and open during computer lessons where she could approach the teacher. In addition, she also acknowledged that some of her classmate were willing to help her. Even though she knows that some of her classmates refused to help her, she would ask them as well. These situations are stated in the transcripts below:

CC: During computer classes, *whatever that I do not understand, I would ask my teacher.* (Session 4, Reference line 1287-1288)

CC: It is very interesting. It's just that *sometimes when I ask*, some of them would tell me. ... if I want to ask them any questions, they would only do so depending on their mood. If they are in a good mood, they would tell you (Session 6, Reference line 2084-2086)

Client has no longer felt helpless but empowered to find a solution. The behaviour changed is stated in transcript below:

CC: I will return home and try to search for the answer on my mobile

phone. If unsuccessful, I would ask my friends on *WeChat* (Session 6, Reference line 2076 -2077)

After the disputing technique was emphasised in session 3, client was able to cope with computer homework and able to finish it quickly. Moreover, client showed motivation to complete her computer work and a sense of achievement through her work. The scenario was shared in the transcript below:

CC: *Yesterday I finished my computer homework quickly. When others have not yet completed theirs, I was done with mine already* (Session 4, Reference line 1329-1330)

With regard to the relationship with her classmates, she was able to relate to them better by seeing them as funny instead of being unhelpful. In addition, the respondent felt happier, more courageous, cheerful and looked forward to computer classes. Her tone of voice was much louder and was energetic. This is reflected in the transcripts below:

CC: It is *funnier* now... My classmates would use the computer to draw ridiculous things, it is very *funny*... (Session 6, Reference line 2081-2082)

CC: I became *happier* because I was *more courageous* to face (computer class). (Session 4, Reference line 1324)

CC: To be more cheerful and courageous, because previously, I disliked attending computer classes. But now, I can't wait to do so... I am excited for the teacher to give us work to do (Session 6, Reference line 2132-2134)

During session 5, client rated her self-confidence pre-test score in computer class between 30 to 40 whereas for the current state it ranged between 50 to 60. Client could sense an improvement in herself. This was recorded in the transcript below:

Counselor: If CC could rate your own confidence level in computer class, what score would you give?

CC: *About fifty to sixty* ...

Counselor: How about before the start of our counselling sessions?

CC: *Thirty to forty* ... (Session 5, Reference line 1646-1650)

In the last meeting, client requested for counselling session to be held after her computer classes. Instead of running away from the counselling session, client had shown her willingness to discuss her problems. She was relaxed and calm smiled occasionally instead of crying. The issue regarding computer lesson is most associated with performance self-esteem. It had the highest increase (17.14%) among the three subcomponents. Thus, it proved that disputing irrational beliefs technique is effective in developing client's self-esteem.

The second issue faced by the respondent is her mother's smoking habit. After the intervention, she was able to rationalise her mother's behaviour by accepting that it had become her mother's habit. Client had mellowed and accepted her mother's habit as shown in the transcripts below:

CC: Because it is her *habit* already (Session 3, Reference line 1192)

CC: Actually, I am not used to her not smoking a cigarette now. This is because she has been smoking since I was young (Session 4, Reference line 1405-1406)

Counselor: You do not scold your mother anymore?

CC: *I still do, but I do it quietly...* (Session 4, Reference line 1382-1388)

Client has also realised that to stop her mother from smoking is not in her hand. She began to understand that her mother's habit had been long cultivated and resistant to change. Her belief system towards that issue has become; "*I will be okay even if she continues smoke*". The new belief is portrayed in the transcript below:

CC: But the person who should change is not me... I cannot change her; she has been smoking for many years already. I will be okay (Session 6, Reference line 2251-2253)

To calm herself, client would listen to music to take her mind off and not focusing on

her mother's smoking habits. In fact, she had also stopped crying to sleep because of her mother smoking habits as shown in the transcripts below:

CC: With regards to my mother, I think I can be rest assured. I don't really care whether she smokes or not anymore. Besides, *I would take time to listen to music... mm... It takes my mind away as I will not be reminded of her smoking anymore* (Session 6, Reference line 2245-2248)

Counselor: Previously, CC mentioned that you will cry in bed during the night before you sleep. How about recently?

CC: *Not anymore* (Session 4, Reference line 1248-1250)

The respondent decided to become more optimistic and accepted her mother's smoking habit. She began to show gratitude towards her mother before the counselling session ended. She was thankful that her mother raised her well as evident in the quotes below:

CC: So, the person that should change is me. I learn to be more *optimistic and happier* (Session 6, Reference line 2255-2256)

CC: I hope that she will never leave me. I want to thank her for taking care of me, to bring me up to who I am today... (Session 6, Reference line 2263-2265)

From the observation, in terms of body state, there was a hint of sadness in her eyes when she was sharing her thoughts and feelings about her mother's habit. However, compared to the previous session, her body was less tense and there was continuation in her speech instead of hesitation. Client has adopted a more rational mind set towards her mother's smoking habit and showed less symptoms of low self-esteem.

The irrational belief system of the client was mainly a result of high expectation, demand for approval, problem avoidance, frustration reactivity and helplessness. The types of irrational belief held by the clients were similar to those reported by Mclenna (1987) and Daly and Burton (1983). According to Mclenna (1987), individuals with irrational beliefs and low self-esteem tend to process personally relevant information in a negative manner which includes having high self-expectations and demand for approval (Banks, 2011).

As for behaviour relating to low self-esteem symptoms, client demonstrated wide varieties of emotions such as avoidance, tendency to check on her mother repetitively, nagging, scolding, arguing, scratching her wrist repetitively, isolation and cold treatment by giving short responses. During the treatment, client was seen repetitively scratching her wrist. There was previous scratch marks on her wrist inflicted by sharp objects were used. The scratching tendency should be noted to prevent it from escalating into self-harm behaviour. Laye-Gindhu and Schonert-Reichl (2005) who examined

non-suicidal self-harm adolescents found that it was directly related to decreased self-esteem.

According to the verbatim transcript and observation, client expressed emotions such as fear, mistrust, shame in addition to being depressed, unhappy, neglected, inferior, hatred, jealousy, self-pity, frustrated, angry, alone, helpless, sad, furious and depressed. Her negative emotions were mostly bottled up inside but when it was expressed it was commonly projected to her mother and classmates. The emotions expressed by clients are consistent with those described in studies of this nature (Fennel, 1999; Steiger, Allemand, Robins, & Fend, 2014; Moksnes & Espnes, 2013).

Clients were generally well dressed. However, whenever she was anxious, she would perspire and have very bad body odour which she was not aware of. In the earlier session, client portrayed a closed posture with folded arms, crossed legs and downturned head. She avoided eye contact as much as possible. Her speech was very slow and limited. Her responses were hesitant and slurred. Her voice was extremely soft and inaudible in parts. She was low in energy. Client teared up and cried uncontrollably when she was sharing her experiences. She rubbed her eyes and also scratched her wrist repetitively. She was very tense and uncomfortable. These are the symptoms of low self-esteem (Fennel, 1999; Moksnes & Espnes, 2013). Maslow (Santrock, 2011) stated that preconditions for basic need satisfaction: freedom to speak

and behave. This is obviously true in the client's situation as she struggled to build relationships with her family and friends.

## CONCLUSION

Self-esteem plays an important role in a teenager's life. High level of self-esteem produces a high level of confidence, problem solving abilities and assertiveness and thus, elevates the teenager's psychological stability. The results of this study are consistent with those of earlier studies relating to self-esteem and in accordance with human needs theory. The study provided empirical evidence of the effectiveness of disputing irrational beliefs technique in developing self-esteem in a female adolescent. Based on this promising result, further in-depth study to develop a manual based on disputing irrational beliefs technique is useful to maximise the potential and effectiveness of the technique.

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## **The Perceivable Future Assessment of Technical Undergraduate Degrees**

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### **ABSTRACT**

The evolution of higher education institutions from public funded to private non-for-profit has provided opportunities to undergraduate students to choose their desired fields of study. It is assumed that quality of education in the private universities is lower than public higher institutions. This study provides insight information that can give a platform to the public regarding the pre-determination on different gender's perception on the technical undergraduate degrees. Indeed, the result shows there is a difference between genders. This will lead to a more comprehensive study onto perceivable assessment on private non-for-profit higher education institution in future for undergraduates who are moving towards higher degrees.

*Keywords:* Perceivable, technical, and undergraduate

### **INTRODUCTION**

The Malaysian tertiary education sector has evolved since the 80s to meet the needs in the society and industry (Grapragasem, Krishnan, & Mansor, 2014). It has long

been perceived by parents that science stream students are smarter than art stream students and as such, teachers in secondary schools tend to put more efforts to science stream students than art stream students (Kususanto & Chin, 2012). Many female secondary school leavers now prefer to enrol in technical undergraduate degree programmes (Luan, 2009; Kususanto & Chin, 2012).

According to UNESCO (2015), a developed country must be able to achieve a technical to laymen ratio of 1:4000 to be

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classified as a developed country. However, according to Chin (2016), Malaysia still falls short of 236,000 technical personnel by the year 2020. In order to achieve the desired numbers of technical undergraduates, Malaysia has witnessed private universities offering a wide range of technical course to meet this demand (Naidu & Derani, 2016; MOHE, 2016).

In Malaysia, there are 20 public and 486 private universities including University Colleges (Ministry of Higher Education (MOHE), 2016). According to Beamer (2011) public higher education institutions are supported and operated by the government while the private ones can be either totally independent or affiliated with other institutions.

The perceivable functional values of the technical degrees will influence the students' choice of the institute. A perceivable functional value is defined as a perceived benefit which is normally derived from the consumption of a service. In higher education, the benefits such as guaranteed future employment, a good salary, and job promotions are examples of perceived functional values by students (Linda, Lai, Jane, & Lung, 2011). The loyalty of the customers or consumers will be increased if they perceived high functional values to the products, goods, or services (Bakon & Hassan, 2013).

Zain, Tahir Jan and Ibrahim (2013) examined effect of perception and promotion on the students' choice of institutions for higher education. However, Prashalini and Derani (2016) showed that there was

no significant correlation between private and public universities in term of student's perspective in satisfaction and quality. The main purpose of private institutions is to serve the public due to the growing demand for higher education which the public institutions are unable to meet (Bessolo, 2011). This study examines the perceivable future assessment of technical undergraduate degrees from private higher education institutions and assesses their performance.

## **METHODS**

A pilot study was carried out to ensure reliability of data (Malhotra, 2010). The result of pilot test enables large scale data analysis (Hazzi & Maldaon, 2015) and hence, in this pre-determination study, 30 first year undergraduates from selected private higher education institutions in Malaysia were randomly selected. According to Arain, Campbell, Cooper, and Lancaster (2010), a minimum of 20 samples are sufficient to conduct the pilot test but Malhotra (2010) concluded that 15 to 30 respondents are sufficient to perform a pilot study. Stratified random sampling technique was used to select 15 male and 15 female respondents; this sampling method ensures sufficient data for quantitative analysis (Sekaran & Bougie, 2013).

The survey questions were adapted from LeBlanc and Nguyen (1999) who originally used them to examine perceived service value among students enrolled in a business degree programme. Alves (2010) used the same technique to assess the perceivable

future of Portuguese higher education via unidimensional approach while Rahman (2012) used the similar survey to study customer's perception and satisfaction in the mobile industry.

This study also used the latest non-parametric Bootstrapping technique. Bias corrected and accelerated (BCa) procedure of bootstrapping method produce confidence intervals which are adjusted in bias and more accurate than bootstrapping results (Efron & Tibshirani, 1994). Normally, a 1,000 random sampling will give accurate inferential results but this research used 2,000 sampling choice as recommended by Efron and Tibshirani (1994), and Efron (2010) to ensure a safe and valid inference through its generated confidence intervals. This inferential statistic was derived using IBM PASW version 18. Bootstrapping BCa statistics was selected for its robustness and the inferential ability through its confidence interval (Davison and Hinkley, 1997; Cox, 2006). The method neither assumes data normality nor has limitation in terms of data distribution. Additionally, bootstrapping provides a standard error and confidence interval for the median value, which are unavailable under most parametric tests (IBM, 2012).

All 30 correspondents' rating scores were used to generate BCa confidence intervals for each question to reflect their overall feedback. Male and female rating scores were also segregated for stratification and comparison study. Non-parametric inferential statistics was also employed for

the assessments of Null hypothesis stated as below:

*Null Hypothesis (H<sub>0</sub>): There is no difference in score rating between male and female respondents.*

The minimum requirement for the rejection of H<sub>0</sub> was p<0.05 level. The rating scores from females from the males in order to create a rating score difference dataset for the H<sub>0</sub> assessment at 95% and 99% confidence level for each question. In the event that the inferential statistics confidence interval does not include zero, H<sub>0</sub> can be rejected to imply that there is a statistically significant rating difference between the genders for a particular question. If the upper confidence interval shows greater positive value than the lower confidence interval's negative value, the overall scores for the males are considered higher than the females.

## RESULTS AND DISCUSSION

IBM PASW version 18 was used to determine the reliability coefficient of the pilot test. The Cronbach's Alpha is 0.864 (Table 1) and since it is above 0.8, the items and scales used in the questionnaire are reliable (Tavakol & Dennick, 2010; Zikmund et al., 2010; Sekaran & Bougie, 2013).

Table 1  
*Questionnaire reliability assessment*

Total Respondent	Cronbach's Alpha	No of Items
30	.864	6

Table 2  
Kolmogorov-Smirnov and Shapiro-Wilk Test

	Statistic	Sig.	Statistic	Sig.
Q1. I believe that technical degree in my chosen institution will guarantee future employment.	.360	.000	.786	.000
Q2. The knowledge I have acquired at my chosen institution will allow me to get job promotion.				
Q3. Technical degree in my chosen institution will allow me to earn a good salary.	.328	.000	.827	.000
Q4. I believe my chosen institution offers quality services.				
Q5. When considering the tuition fee I pay, I believe that my chosen institution offers sufficient services. Q6. The reputation of my chosen institution influences the value of my technical degree.	.190	.007	.903	.010

Table 3  
Skewness and Kurtosis Test

	Q1	Q2	Q3	Q4	Q5	Q6
Mean Median Skewness	3.63	3.67	3.50	3.70	3.60	3.40
	4.00	4.00-.588	3.50	4.00-.859	4.00	4.00

**Statistics and Null Hypothesis Assessment**

statistics and its BCa results ( $p = 0.05$ ) are shown in Figure 1.

30 rating scores were used to analyse each question separately. The descriptive

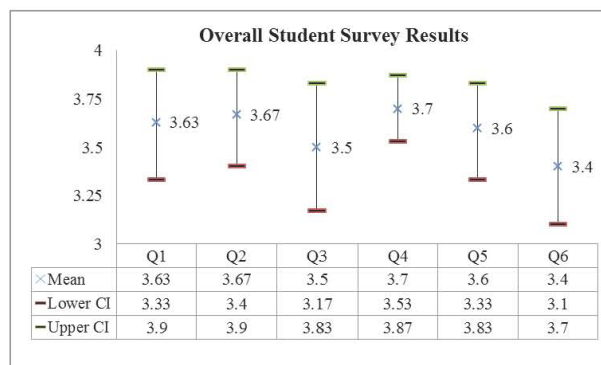


Figure 1. 30 rating scores and inferential statistics ( $p=0.05$ ) for each survey question

Overall, question 3 has the largest rating followed by questions 1 and 6. Question 4 has the highest score in this pilot study. The average score is about 3.58 for each question. The same methodology was

repeated to study the rating score difference of each gender. The rating scores for males are shown in Figure 2 while those of the females are displayed in Figure 3.

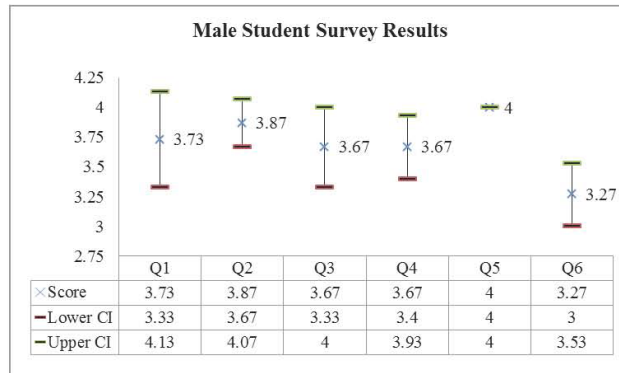


Figure 2. Male rating scores and inferential statistics ( $p=0.05$ ) for each survey question  
 Note: Data distribution for question 4 was skewed and hence, the median score value was adopted while the scoring data distribution for all other questions were considered as normally distributed and thus, represented by the mean rating score value

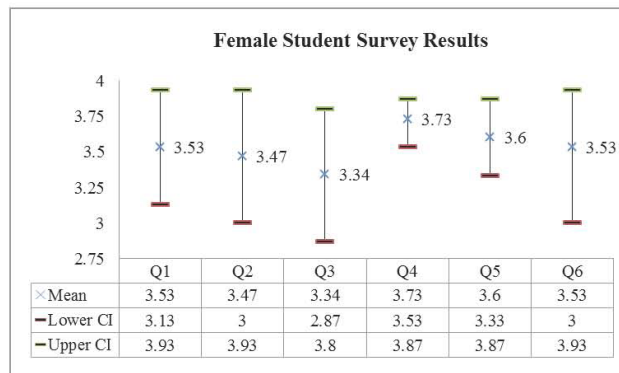


Figure 3. Female rating scores and inferential statistics ( $p=0.05$ ) for each survey question

Overall, by comparing Figure 2 and Figure 3, male respondents had higher rating scores. The 95% confidence interval ranges of female rating scores was smaller than male respondents except for question number

6. This implies that the overall females rating scores had smaller spread than the male. Rating score difference dataset was computed for the inferential statistics analysis in order to study the possible

rating score behaviour of different genders. The descriptive statistics and inferential statistical analyses were conducted at 95% and 99% confidence levels and tabulated in Table 4.

Table 4  
*Descriptive statistics and Bootstrapping BCa results of rating score difference*

30 respondents	Mean of rating difference	Mode of rating difference	Std. Dev. of rating difference	95% BCa Lower	99% BCa Lower
Q1	0.20	0	1.15	-0.27	0.73
Q2	0.40	-1	1.12	-0.07	0.87
Q3	0.33	0	1.18	-0.07	0.80
Q4	-0.07	0	0.96	-0.47	0.33

*Note:* Rating score difference = male rating score – female rating score. Rating score of zero implies that a rating indifference between the genders.

The overall mode of rating score’s difference is zero as shown in Table 4 while every confidence intervals above that indicate that it is highly likely that there is no rating score difference between the two genders at both  $p=0.05$  and  $0.01$  level. Although  $H_0$  appears to be acceptable, it is too early to conclude that there is no rating score difference between both genders at a larger scale. The overall mean rating score difference from all six questions is 0.10 but the upper confidence interval shows higher positive value than the negative value at its lower confidence interval (at both  $p=0.05$  and  $p=0.01$  level). As such, male respondents provided higher scores than their female counterparts. Male respondents gave higher scores for Question 1 to 3. The rating score pattern changed from question 4 onwards where the lower confidence interval showed higher negative values than the positive values at its lower confidence interval (at both  $p=0.05$  and  $p=0.01$  level). This implied for the last 3

questions, t female respondents gave higher rating scores than their male counterparts. For question 5, the rating score pattern was not obvious as the confidence interval evenly extended to both end limits at  $p=0.05$  but at  $p=0.01$  level lower confidence interval shows more negative values than the upper confidence interval indicating that female respondents gave higher rating scores than male respondents.

**CONCLUSION AND RECOMMENDATIONS**

It is clear from this study that male and female rating scores are significantly different from each other ( $p=0.01$ ). Future research can focus on the modelling of male and female rating scores separately. Although this study involves only 30 respondents to assess the perceivable future assessment of undergraduate degrees, it offers an insight for further studies to include equal male and female population in order to avoid

bias rating scores. Hence, consequential studies in gender behavioural differences could provide detailed information useful for enhancing student services and offer programmes to cater to both genders. Future studies can also explore the intention of existing undergraduates to continue their tertiary studies within the same higher education institution.

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## **Improving Collaborative Activities in E-learning using Social Presence Requirement Elicitation Process**

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### **ABSTRACT**

In developing learning application, a social presence requirement is needed to gain a sense of connectedness albeit through user interface. Social presence is important in order to increase interaction and collaboration between users. In motivating students to actively use E-learning, the requirements elicitation process plays an important role. Multiphase mixed method design is used in this study to evaluate the usability of requirements elicitation product that can be used to extract social presence requirements. There are three artefacts namely *Technical Guide to Requirements Elicitation for Social Presence Support*, *Social Presence Requirements Template* and *Social Presence Requirements for E-learning* that are produced in this study to demonstrate their role in supporting E-learning environment.

*Keywords:* Artefact, collaborative application, E-learning, Requirements elicitation process, requirements, social presence requirements, users

### **INTRODUCTION**

Requirements elicitation is an initial process in Requirements Engineering (RE) to gather stakeholders' ideas before software

development begins. The malfunction of requirements elicitation process may lead to project failure during software development (Kausar, Tariq, Riaz, & Khanum, 2010). The challenge to elicit requirements can be seen in developing collaborative application (Murray-Rust, Scekic, Truong, Robertson, & Dustdar, 2014; Pedreira, García, Brisaboa, & Piattini, 2015; Rahman & Sahibuddin, 2010). Obtaining user requirements from human activities such as exchanging information, discussions, problem solving,

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resolving conflicts or disagreements is a challenge because it is generated by humans (Fournier, Kop, & Durand, 2014). Therefore, besides having technical solutions for developing collaborative applications, stakeholders should consider requirements from the human perspective (Hayat et al., 2010).

A proper requirements elicitation technique may encourage the stakeholders to obtain more accurate requirements (Dalpiaz, Giorgini, & Mylopoulos, 2013; Dzung & Ohnishi, 2009; Farfeleder et al., 2011; Kaiya & Saeki, 2006; Kitamura, Hasegawa,

Kaiya, & Saeki, 2008; Konaté, Sahraoui, & Kolfshoten, 2013; Liaskos, McIlraith, Sohrabi, & Mylopoulos, 2011; Raspotnig, Karpati, & Katta, 2012; Shibaoka, Kaiya, & Saeki, 2007; Thurimella & Maalej, 2013) of social presence in E-learning. To address RE issues in collaborative application, the authors have related to social presence to promote interaction in a collaborative application or face-to-face interaction. Figure 1 illustrates how social requirements and social presence may be understood in the RE field and clarify the need for social presence as a social presence requirement.

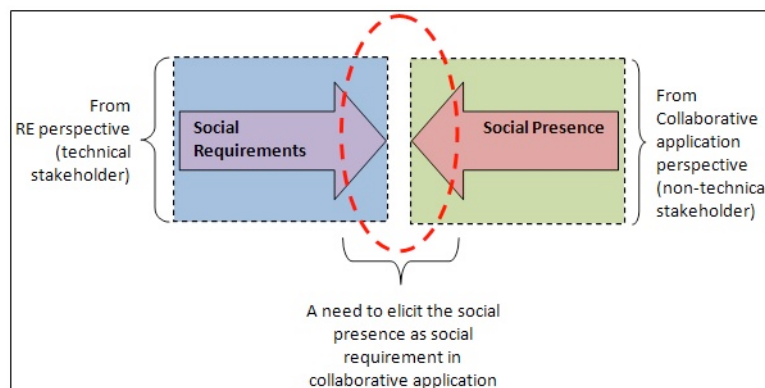


Figure 1. The Relationship between Social Presence and Social Requirements

There is a need to prepare an accurate set of requirements specification to better understand the users' needs in E-learning. In this research, the requirements elicitation process reveals an accurate set of social presence requirements. The goal for having requirements elicitation process in this study is to ensure that users are satisfied with the product. Effective usage of E-learning is essential to motivate the students to learn and

use the application actively. In developing E-learning as a collaborative application, the stakeholders should gather the requirements needed by students to ensure that they can interact and share knowledge actively in the E-learning community. Therefore, by using a suitable requirements elicitation process, stakeholders will be able to successfully capture the right criteria based on users' interests and minimize requirement errors

(Azadegan, Cheng, Niederman, & Yin, 2013; Islam & Houmb, 2010; Vale, Albuquerque, & Beserra, 2010).

This paper envisions the opportunity to the RE field to investigate the knowledge of requirements elicitation process in E-learning whereby the E-learning is an example of application that is demonstrating the ability of collaborative activities. This paper highlights the importance of eliciting social presence via learning technology by using social presence requirements elicitation process. It will evaluate the usability of requirements elicitation product for supporting social presence requirements three artefacts known as *Technical Guide to Requirements Elicitation for Social Presence Support*, *Social Presence Requirements*

*Template and Social Presence Requirements for E-learning*. The purpose of these artefacts is to allow developers or requirements engineers to extract information related to social presence and that of E-learning users. The artefacts can also be supporting documents to elicit social presence elements for other collaborative applications besides E-learning.

### METHODS

In this work, the multiphase mixed method design is used as a guide as shown in Figure 2. The author has chosen this design method in order to elaborate findings of social presence requirements and address the contribution with the Requirements Engineering (RE) body of knowledge.

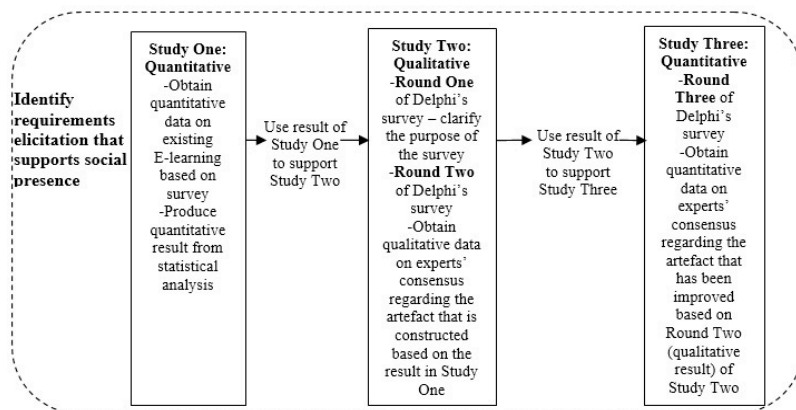


Figure 2. Multiphase mixed method design

Study One in the multiphase design was conducted to investigate the existing requirements elicitation processes for supporting social presence in a collaborative application. It aims to identify the social presence factors of the E-learning domain,

and to design a new requirements elicitation process flow. The author simplifies the research activities and outcomes for each study in the multiphase by specifying the research questions, phase, and analysis as well as reporting each study in the

multiphase design. A detailed description on Study One has been revealed by Rahman and Sahibuddin (2016).

Next, the initial artefact produced in Study One was used in Study Two to demonstrate the second part in the multiphase method design. The objective of Study Two was to demonstrate the usability of social presence requirements in a collaborative application. The initial artefact was used as an initial document to develop a 'Technical Guide to Requirements Elicitation for Social Presence Support'. In this research, a three-round Delphi survey was used to seek consensus from experts regarding the developed artefact. A Delphi survey was carried out to evaluate the usability of social presence requirement in supporting a collaborative application. The evaluation of the artefact, which has the support of social presence requirements, was initiated to the E-learning domain. Round One and Round Two of the Delphi were carried in Study Two. Meanwhile, Round Three of the Delphi was carried out in Study Three of the multiphase method design.

Study Three, which consists of Round Three of the Delphi's survey, was conducted quantitatively to evaluate the artefacts produced from the experts' consensus in Round Two of the Delphi. The objective of Study Three was to evaluate the usability of the produced artefacts. Box plots are used to portray the results after conducting usability evaluation for the produced artefacts.

## RESULTS AND DISCUSSION

This section elaborates on the usability evaluation after completing requirements elicitation process using box plot analyses. The box plot was used to visualize the concentration of the data in the respondents' answers (Dean & Illowsky, 2013) as well as to explain the findings (Uusimaki, 2004). The purpose of presenting the box plot in the Delphi results was to help understand how the artefacts are related, such as to forecast feedback from the experts regarding the quality of the document structure for each artefact, the quality of the content for each artefact, and regarding the use of the social presence factors presented in the artefacts. The feedback obtained was analysed to obtain the experts' opinions on Artefact One, Artefact Two, and Artefact Three. Examples survey instruments for the artefacts can be seen in Appendices section.

Figure 3 shows the E-learning and software documentation experts' response to the structure of Artefact One. The overall results revealed that the artefact is well-structured, whereby the experts' responses reached a median value of 4 and 5. As can be seen in Figure 3, the eleven experts expressed their responses equal to or more than 3 of the 5-point Likert scale values which indicated positive responses towards the structure of Artefact One.

As can be seen in Figure 4, a twenty-fifth percentile of the experts responded that the attributes of Artefact One, such as

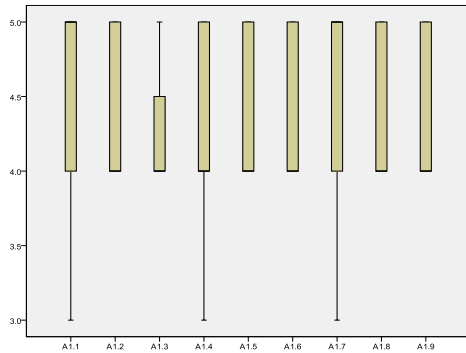


Figure 3. Box plot on the responses from four of the E-learning experts regarding the requirements elicitation contribution of social presence support

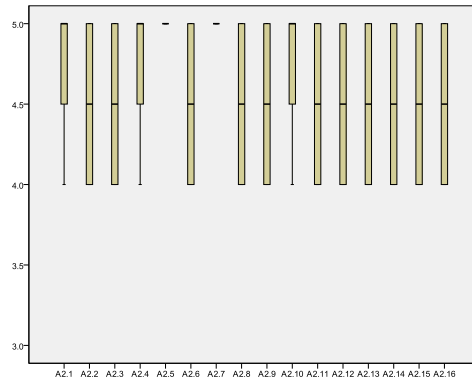


Figure 4. The E-learning experts' responses towards the document attributes (Artefact One)

the clarity of figures and tables, relevance of content, documentation preciseness, documentation readability, documentation completeness, documentation accuracy, documentation consistency, being up-to-date and use examples in document were either 4, 4.5 or 5. The median results from the documentation experts were also 4.5 and 5. The median for the E-learning experts' response towards document attributes was 4 and 5 for Artefact One. A similar response was also achieved from software documentation experts. Overall, the feedback of all experts was consistent regardless of their background. Therefore, it could be concluded that the results from the two groups are not extreme. The author also believed that the responses given by the experts contributed a positive respond, thus the artefact could be recommended for social presence requirements implementation for E-learning.

Next finding reveals the result for Artefact Two which consists of the analysis

of Social Presence Requirements Template. Figure 5 depicts the box plot of the experts' feedback for Social Presence Requirements Template. The response of the eleven experts showed a positive response, whereby the seventy-fifth percentile is 5, which is the highest degree in the 5-point Likert scale. Additionally, it also indicated that the use of the MoSCoW prioritization method introduced in this template was acceptable to software documentations' experts and E-learning experts. The questions from B2.10 to B2.13, which asked the experts' their opinions whether the template was able to give instructions on writing 'Must Have', 'Should Have', 'Could Have' and 'Won't Have' requirements, achieved a median with a value of 5. This showed that the experts agreed on the use of MoSCoW prioritization method for classifying social presence elements as proposed earlier in the SEM analysis. In general, the experts agreed with the social presence requirements template which was represented by Artefact Two.

The authors also provide an analysis of the experts' feedback on social presence requirements quality in E-learning using Artefact Three. Figure 6 depicts a box plot for analysing the quality of social presence requirements for the E-learning domain in Artefact Three. The quality was measured using the questions' list from C2.1 to C2.14. Overall, the experts agreed that Artefact Three was acceptable since the documentation for social presence requirements for the E-learning domain was in the twenty-fifth percentile for all questions which were at 4 and 4.5. Question C2.9 also explained the experts' positive opinions with twenty-fifth percentile at 4 which revealed the experts' feedback on the ability of factors such as Perceived Satisfaction (PS), Perceived Relevancy (PR), Perceived Confidence (PC), and Perceived Attention (PA) to be justified as social presence requirements in E-learning. The median reported in Figure 6 were 4 and 5 which infers that the experts gave high marks for accepting social requirements

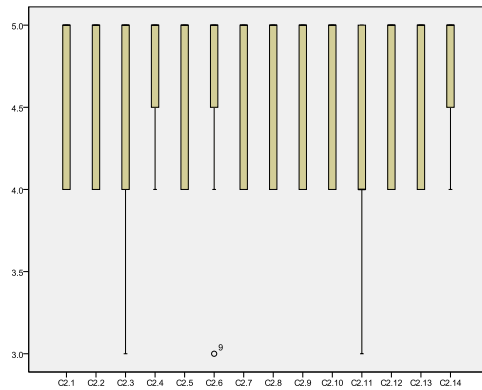


Figure 6. The experts' feedback on Social Presence Requirements for the E-learning domain (Artefact Three)

documented for the E-learning applications in Artefact Three.

All three artefacts can be used as guide and reference in capturing social presence requirements in the E-learning domain. The features of E-learning described in the artefacts may differ from the features of social presence described in other collaborative applications. The usability evaluation performed by Delphi's survey showed Artefact One, Artefact Two, and Artefact Three, was able to elicit the following elements: Perceived Satisfaction, Perceived Relevancy, Perceived Confidence, and Perceived Attention.

## CONCLUSION

There is a potential to improve the elicitation process of capturing social presence requirements in E-learning. Requirements engineers and related stakeholders may face some difficulties in obtaining requirements related to human experience and feelings.

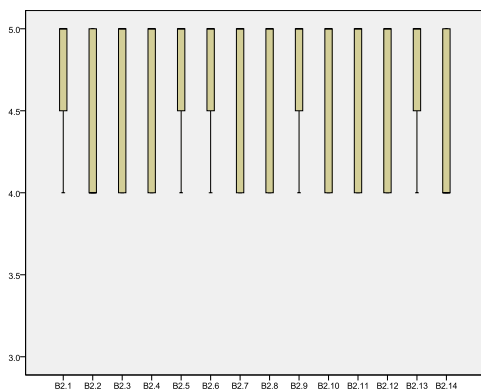


Figure 5. The experts' responses towards Social Presence Requirements Template (Artefact Two)

Therefore, requirements elicitation products such as *Technical Guide to Requirements Elicitation for Social Presence Support*, *Social Presence Requirements Template and Social Presence Requirements for E-learning* are used. This research is able to expand the knowledge of RE whereby it has produced requirements elicitation products for developing requirements in collaborative application.

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**APPENDICES**

*Examples of evaluation instruments for the artefacts*

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A1.1	Section '1. Introduction' is well-structured
A1.2	Section '2. Overall Description' is well-structured
A1.3	Section '3. An Overview of Social Presence' is well-structured
A1.4	Section '4. Social Presence in E-learning' is well-structured
A1.5	Section '5. Adapting Technical Guideline to E-learning Domain' is well-structured
A1.6	Section '6. Social Presence Requirements Element' is well-structured
A1.7	Section '7. Prioritization Matrix for Social Presence Requirements' is well-structured
A1.8	The document refers to related standards to come up with its own content
A1.9	The stakeholders find it easy to follow structure and content of the document
A2.1	Clarity of figures and tables
A2.2	Relevance of content
A2.3	Documentation preciseness
A2.4	Documentation readability
A2.5	Documentation completeness
A2.6	Documentation accuracy
A2.7	Documentation consistency
A2.8	Being up-to-date
A2.9	Use of examples in document
A2.10	Explanation is not redundant
A2.11	Achievable
A2.12	Concise
A2.13	Sections are cross-referenced
A2.14	Prototypable / Implementable
A2.15	Reusable
A2.16	The requirement specified is testable whereby it is able to generate test case from this document.
B2.1	The template clearly mention a sequence of steps to be carried out
B2.2	The template explains how to classify and describe elicited social presence element for Perceived Satisfaction, Perceived Relevancy, Perceived Confidence and Perceived Attention
B2.3	This template shows on how to write down requirements identifier
B2.4	This template shows on how to write down element of social presence using the Technical Guide given
B2.5	This template shows on how to write down description of social presence using the Technical Guide given
B2.6	This template shows on how to write down familiar statement of social presence using the Technical Guide given
B2.7	This template provides complete guide to do elicitation based on requirements elicitation process flow in section '5. Adapting Technical Guideline to E-learning Domain'
B2.8	This template states clearly the use of prioritization method in requirements elicitation

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**APPENDICES** (*continue*)

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B2.9	This template tells what is MoSCoW prioritization method before giving instruction to prioritize elicited requirements
B2.10	This template gives instruction on writing ‘Must Have’ requirements
B2.11	This template gives instruction on writing ‘Should Have’ requirements
B2.12	This template gives instruction on writing ‘Could Have’ requirements
B2.13	This template gives instruction on writing ‘Won’t Have’ requirements
B2.14	This template gives instruction to make a clear statement for each requirements description that need to be fulfilled
C1.1	The document manages to be a supporting document for E-learning development
C1.2	The document describes E-learning owner and related E-learning description
C1.3	The description of E-learning user is clear
C1.4	The document states clearly requirements for PS
C1.5	The document states clearly requirements for PR
C1.6	The document states clearly requirements for PC
C1.7	The document states clearly requirements for PA
C1.8	The document gives understanding on social presence in E-learning
C1.9	This document identifies each requirement by using prioritization method
C1.10	The document helps stakeholders to specify social presence requirements in ranking order
C1.11	The document is able to be used as a reference to other related collaborative application, such as E-mail application, document sharing application and other collaborative application
C2.1	This document gives clear instruction to write down requirements element for PS, PR, PC and PA
Q2	This document organizes requirements element appropriately
Q3	This document describes related content on social presence in E-learning
Q4	This document describes each section precisely
Q5	This document can be understood by the reader to explain social presence feature
Q6	This document meets the criteria to support social presence in E-learning
Q7	This document presents another aspect of requirements specification whereby it emphasizes on social presence for collaborative application
Q8	This document gives sufficient examples by using ‘Familiar Statement’ for each requirements element in component PS, PR, PC and PA
Q9	The requirements element for each component (PS, PR, PC and PA) are achievable to be implemented in E-learning
Q10	The explanation for each ‘Element’, ‘Description’ and ‘Familiar Statement’ are concise
Q11	Each section in this document is inter-related to represent social presence requirements
Q12	The requirements element in this document is possible to be implemented
Q13	The requirement specified is testable whereby it is able to generate test case from this document
Q14	This document can be used as a reference to extract social presence for other collaborative application

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## **The Growth of Waqf Properties through Infrastructure Development According to Al-Hadith**

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### **ABSTRACT**

Waqf is an Islamic institution to serve as a catalyst for Muslim economic development. The existence of this socio-economic institution started with Prophet Muhammad (pbuh) and it became the root of success for the Islamic social security system. The expansion of waqf properties through investment or *istithmar* is one of the possible ways to utilise waqf. It was found that 75% of the hadith related to waqf in *al-Kutub al-Sittah* debated on waqf infrastructure. This shows the importance of infrastructure development in the expansion of waqf properties.

*Keywords:* Al-Hadith, development, waqf, infrastructure, properties

### **INTRODUCTION**

Even though the endowment concept has existed long before Islam, nevertheless Islam has developed waqf institution based on rules stipulated by shariah (Islamic laws) and catalysing its growth until it appears

to be the source of financial development of Muslims (Razali, 2015). Waqf is widely accepted and adopted as a supporting economic institution and its implementation has gone through several changes. On the issue of the development of waqf properties, the mechanism of investment or *istithmar* to develop infrastructure is a best method to ensure the perpetuity of waqf properties.

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### **CONCEPT OF WAQF**

Waqf is long-established institution in Islam and has been accepted as a socio-economic development institution for Muslims in Malaysia. Waqf is defined

as property, where the right of the *waqif* (endower) is put on hold from any business affairs, inheritances, grants and wills while maintaining the physical resource. The benefits from properties under waqf are for general welfare or stated with the *waqif* intention to get closer to Allah (Jabatan Wakaf, Zakat dan Haji, 2006). Whereas the property to be donated should be useful to the public as well as valuable by shariah (al-mal mutaqawwim).

The existence of waqf is not stated explicitly by using the term waqf itself in the holy book al-Qur'an but there are some marks from the al-Qur'an that encourage people to improve the welfare of society by donating properties. Every individual who performs waqf sincerely will be rewarded continuously by Allah. There are points from al-Quran that describe waqf;

“The example of those who spend their wealth in the way of Allah is like a seed [of grain] which grows seven spikes; in each spike is a hundred grains. And Allah multiplies [His reward] for whom He wills. And Allah is all-Encompassing and knowing.” (Al-Qur'an 2:261)

“And if someone is in hardship, then [let there be] postponement until [a time of] ease. But if you give [from your right as] charity, then it is better for you, if you only knew.” (Al-Qur'an 2:280)

“Never will you attain the good [reward] until you spend [in the way of Allah from that which you love. And whatever you

spend - indeed, Allah is knowing of it.” (Al-Qur'an 3:92)

All of the verses in the al-Quran reflect indirectly to waqf. Arguments of waqf in the hadith can be found abundantly in books of hadith, however, in the chapter of fiqh (Islamic jurisprudence) of the books, the argument for waqf is focused on hadith related to waqf land of Umar in *Khaybar* and Abu Talhah's dates farm and *Bayruha* well. The hadiths regarding waqf in *al-Kutub al-Sittah* (*Sahih al-Bukhari*, *Sahih Muslim*, *Sunan Abu Dawud*, *Sunan Al-Tirmidhi*, *Sunan Al-Nasa'i* and *Sunan Ibn Majah*) there are 36 hadith including the two above-mentioned hadith. Prophet Muhammad (pbuh) once explain about waqf in *Khaybar* land which belongs to Umar through this hadith:

“It is narrated Yahya Bin Yahya Al-Tamimi has reported to us Sulaym Bin Akhdar from Ibn 'Aun from Nafi' from Ibn 'Umar reported: Umar acquired a land at *Khaybar*. He came to Allah's Apostle (may peace be upon him) and sought his advice in regard to it. He said: Allah's Messenger, I have acquired land in *Khaybar*. I have never acquired property more valuable for me than this, so what do you command me to do with it? Thereupon he (Allah's Apostle) said: If you like, you may keep the corpus intact and give its produce as *sadaqah*. So 'Umar gave it as *sadaqah* declaring that property must not be sold or inherited or given away as gift. And Umar devoted it to the poor, to the

nearest kin, and to the emancipation of slaves, aired in the way of Allah and guests. There is no sin for one, who administers it if he eats something from it in a reasonable manner or if he feeds his friends and does not hoard up goods (for himself). He (the narrator) said: I narrated this hadith to Muhammad, but as I reached the (words)” without hoarding (for himself) out of it.” he (Muhammad’ said:” without storing the property with a view to becoming rich.” Ibn ‘Aun said: He who read this book (pertaining to Waqf) informed me that in it (the words are)” without storing the property with a view to becoming rich.” (Sahih Al-Bukhari: Hadith no. 2532, 2565, Sunan Abu Dawud: Hadith no. 2493, Sunan Al-Tirmidhi: Hadith no. 1296, Sunan Al-Nasa’i: Hadith no. 3542, 3543, 3544, Sunan Ibn Majah: Hadith no. 2387)

“Malik related to me that Ishaq ibn Abdullah ibn Abi Talha heard Anas ibn Malik say, “Abu Talha had the greatest amount of property in palm-trees among the Ansar in Medina. The dearest of his properties to him was *Bayruha*’ which was in front of the mosque. The Messenger of Allah, may Allah bless him and grant him peace, used to go into it and drink from the pleasant water which was in it.” Anas continued, “When this ayat was sent down ‘You will not obtain rightness of action until you expend of what you love,’ (Al-Qur’an 2: 176), Abu Talha went to the Messenger of Allah, may Allah

bless him and grant him peace, and said, ‘Messenger of Allah! Allah, the Blessed, the Exalted, has said, “You will not obtain until you expend of what you love.” The property which I love the best is *Bayruha*’. It is *sadaqah* for Allah. I hope for its good and for it to be stored up with Allah. Place it wherever you wish, Messenger of Allah.’ “The Messenger of Allah, may Allah bless him and grant him peace, said, ‘Well done! That is property, which profits! That is property, which profits. I have heard what you have said about it and I think that you should give it to your relatives.’ Abu Talha said, ‘I will do it, Messenger of Allah!’ Abu Talha therefore divided it among his relatives and the children of his paternal uncle.” And said Ismai’l and Abdullah Bin Yusuf and Yahya Bin Yahya from Malik: “(This is the treasure which the reward) continue to flow.” (Sahih Al-Bukhari: Hadith no. 2562, 4189, 5180, Sahih Muslim: Hadith no. 1664).

The above-mentioned hadith shows Prophet Muhammad’s call to his companions to perform waqf. Prophet Muhammad explained to Abu Talhah that the best charity happens when you give away your most cherish treasure. Hearing this Abu Talhah without further delay gave away his most cherished wealth which were a date farm and *Bayruha*’ well as waqf properties (Al-Sharbini, 2006).

According to al-Mawardi, there are two fundamental concepts of waqf; i.e.: the *waqif* is prohibited from selling the waqf property and the *waqif* perform waqf with

its benefits according to a specific way (Ibn Hajar, 2003). It can be stipulated here that there are two basic things when performing waqf (Hydzulkifli & Asmak, 2013), namely:

1. *Tahbis al-Asl*: Controlling and maintaining the assets donated from being damaged or lost.
2. *Tasbil al-Thamarah*: Channelling the benefits of asset to *mawquf 'alayh* (the beneficiaries).

The responsibility to maintain and channel the benefits of waqf properties is that of the waqf trustee who is known as *mutawalli* or *nazir*.

The role of the trustee includes ensuring the safety of waqf properties to preserve their value. Waqf properties which are managed properly, will be able to reduce any incurred cost such as costs of repairing waqf assets. There are several approaches that can be considered to ensure the use of the waqf properties (Hydzulkifli & Asmak, 2013), including:

1. Lease out existing waqf properties. Only a trustee has the right to rent out the waqf properties to a leaseholder. *Qadi* or the authority also have right to lease out the properties to any leaseholder (Ibn al-'Abidin, 1966). However, the transaction should be reported to the trustee. Income from the revenue can be channelled to beneficiaries or be used to develop other waqf properties.

2. Conduct agricultural activities and stockbreeding on waqf properties. The trustee needs to ensure marketability of agricultural products and livestock, and calling for systematic planning to prevent losses that may affect the original capital of waqf properties.
3. Construct a commercial building on waqf property to earn revenue.

Infrastructure development is one of the new alternatives that can generate benefits as well as to ensure perpetuity of waqf property. Construction of commercial buildings such as supermarkets, hotels, resorts and others can develop waqf assets while contributing to the continuation of the benefits of property ownership to the public.

## GROWTH OF WAQF PROPERTIES

Among the basic objectives of waqf is to make waqf assets beneficial and productive, namely *Tasbil al-Thamarat* (Hydzulkifli & Asmak, 2013). The development of waqf properties has to go through an instrument that can bring good returns and profit of the waqf. Profits derived from waqf properties has to be beneficial to the welfare of Muslims Ahmad Faizul, et al., 2015). Investment is regarded as the best mechanism to ensure waqf growth and at the same time generate profits. Investment or *istihmar* is no stranger in sharia. The word *istihmar* is a derivative word from *masdar al-sudasi* from the root word *al-thamara*.

There are some experts who use *al-tathmir* with the purpose of increasing the property and developing it (al-Qal'ahji, 1997). Ibn Faris said that the word *istithmar* is something produced from something, such as a servant prayer to Allah in a statement "*thammar Allahu malahu*" which can be understood as *nammahu* which means develop (Ibn Faris, 1994). Ibn Taymiyyah stated that *al-istihmar* is developed with the intention to increase wealth (al-Tabari, 1968), while Muslim jurist used *istihmar* to mean to get profit or revenue. The word is also used for the purpose of nourishing properties and multiplying it (al-Khin et al., 1996).

Abandoned waqf properties have to be developed so that it can be a valuable asset. Thus, the proposed infrastructure development of waqf properties means investment of waqf properties (al-Fazran, 2005). In this context, development through investment in developing infrastructure is the best way to achieve the true meaning of waqf which is *Tasbil al-Thamarah* (channel benefit of properties to the beneficiaries) and *Tahbis al-Asl* (control and maintain waqf properties from damaged or lost).

The act of associating waqf term to any infrastructure that being constructed using waqf fund should be reviewed its functions and role. Indeed, there are some infrastructure built using waqf funds, yet does not function as waqf as it supposed to be. Profit maximization are being emphasized rather than original waqf goals as stipulated by sharia, although undoubtedly it is deemed as one of the mechanism in

developing waqf properties. For example, the Department of Awqaf, Zakat and Hajj of Malaysia (JAWHAR) has built four waqf hotels nationwide namely Hotel Grand Princess (JAWHAR-MAIDAM) in Terengganu, Hotel The Regency Seri Warisan (JAWHAR-MAINPk) in Perak, Klana Beach Resort (JAWHAR-MAINS) in Negeri Sembilan and Princess Beach Hotel (JAWHAR-MAIM) in Melaka (Jabatan, Wakaf, Zakat dan Haji, 2016). The hotels were built using waqf funds but it is not endowed for public use. The hotels are operated and managed as conventional hotels. They are not waqf hotel in the sense recommended in the hadith.

#### **THE CONCEPT OF WAQF INFRASTRUCTURE**

The term waqf infrastructure is a combination of words from waqf and infrastructure and basic services or facilities (Noresah, 2013). Waqf infrastructure can be defined as a trust fund established specifically for the purpose of providing basic facilities and services required for the development and growth of an organization, society and the state in the name of Allah S.W.T.

The main source for waqf infrastructure is obtained either through traditional waqf involving waqf that consists of immoveable property (fixed assets) such as land and building (Murat, 2011) or cash waqf; the waqf that existed with money, whereas the profits is used for charity to be closer to Allah (Magda, 2009), whereas the purpose is specific for constructing infrastructure that can be beneficial or generate continues

revenue. The difference between waqf infrastructures with any other waqf is from the point of specification in constructing infrastructure that can be beneficial and physically exist.

The purpose of waqf infrastructure is specifically discussed compared to other waqf i.e., to preserve the basic concept of waqf stipulated in the time of Prophet Muhammad (pbuh) namely the retention of waqf in the point of 'ain or physical condition and the outcomes are used continuously. Although many Muslim scholars make great effort to diversify and improvise the concept of waqf, but the concept of waqf infrastructure fulfil the stipulated goal of waqf and at the same time satisfy the intention of *waqif* by means of physical waqf infrastructure resulting from the use of waqf funds particularly involving cash waqf.

Waqf infrastructure does not deny the role played by other types of waqf since the diversity of waqf actually complement each other. Highlighting the concept of waqf infrastructure will assist waqf stakeholders in planning waqf property development so that it can fulfil the two basic goals mentioned earlier. Moreover, waqf infrastructure meets the perspective of the hadith related to waqf.

### **PROPHETIC PERSPECTIVE IN WAQF INFRASTRUCTURE**

Al-Quran and al-Hadith are the two main sources of sharia, leading towards an understanding, and determination of Islamic law. Debate regarding waqf through the Prophetic perspective can be obtained by

referring to the hadith related to waqf. To get the original and authoritative sources, reference is made to six major venerated hadith, known as *al-Kutub al-Sittah* and which consists of *Sahih al-Bukhari*, *Sahih Muslim*, *Sunan Abu Dawud*, *Sunan al-Tirmidhi*, *Sunan al-Nasa'i* and *Sunan Ibn Majah*.

Debates related to waqf in *al-Kutub al-Sittah* do not specifically discuss everything under the title *al-Waqf* or *al-Ahbas*. After looking through the words related to waqf, such as the word *waqf*, *al-waqf*, *waqif*, *al-waqif*, *mawquf* and *al-mawquf*, as well as identifying hadith discussed in a special chapter linked to *al-waqf* or *al-ahbas*, it can be concluded that there are 36 text hadith in *al-Kutub al-Sittah* which discuss waqf. *Sahih al-Bukhari* and *Sunan al-Nasa'i*, respectively contain 15 hadith text representing 84% of the whole hadith of waqf. It is followed by *Sunan al-Tirmidhi* and *Sunan Ibn Majah* which each contain 2 hadith texts relating to waqf representing 10% of the entire hadith. While only one text of hadith found in *Sahih Muslim* and *Sunan Abu Dawud* that represent 6% of the entire hadith.

From the study of the 36 hadith texts, it was found there are several texts which mention waqf infrastructure. Analysis found that the debate in the hadith can be divided into two categories i.e. management of waqf and waqf infrastructure. The debate related to the management of waqf include a discussion of waqf conditions, the priority in granting waqf, permission for *waqif* and trustee to use waqf, the waqf administration,



witnessing the waqf and waqf for the poor, the rich and guests. Discussions on waqf infrastructure also includes waqf land, waqf's well for public use, waqf for horse ride and waqf *Nabawi* mosque.

Analysis found that from 36 hadith texts, 9 hadith which is 25% of total hadith related to the management of waqf while 27 hadith represent 75% of the hadith discusses waqf infrastructure. A high percentage of infrastructure-related discussions proves their importance.

## CONCLUSIONS

Developing waqf properties is an obligation in ensuring waqf institution prosper and be a catalyst to Muslim's economic progression. Waqf property development must meet two primary objectives i.e. *Tahbis Al-Asl* which control and preserve assets that are under waqf from being lost or damaged and *Tasbil al-Thamarah* which delivers benefit from waqf assets. Both of these goals can be achieved through the development of waqf infrastructure conducted in accordance with the perspective of Prophet Muhammad (pbuh). Indications from the hadith of the Prophet Muhammad (pbuh) related to waqf should be studied more carefully in order to make sure the implementation to this waqf infrastructure is effective and achieves their objectives.

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## **Tracing the Trajectories of History of Malaysia: Exploring Historical Consciousness in Sarawak**

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### **ABSTRACT**

National history often linked to national identity. The construction, erosion, and reconstruction of national histories are always subject to contestations. The struggle over collective memory of the colonial past is an object of concern for its impacts on national identity. In today's world, narratives of the past are often remediated and reinterpreted. This article examines how the natives of Sarawak view the history of Malaysia and see themselves as part of the narrative. The findings reveal that the natives see themselves as a distinct historical entity outside the national narrative.

*Keywords:* Historical consciousness, history, identity, national narrative, otherness, Sarawak

### **INTRODUCTION**

History is a compilation of human experiences within a given culture. It serves as a frame of reference for people to appreciate their past in order to construct

the future. MacRaild and Black (2007) contend that history is not just about remembering the past, but function as a precedent for contemporary action, and against the repetition of the past mistakes. Thus, the study of history is vital where past experiences provide a perspective to the future in addition to provide moral fortitude, building one's identity, and developing good traits for good citizenship (Stearns, 1988).

In recent decades, there has been substantial research on history and memory. Studies which reveal myriad ways how people link their present with the past (Ebbrecht, 2007; Schwalbe, 2006; Seixas,

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2012a; Ting, 2014) and anxieties they face upon unravelling it, heated debates over national pasts as played out in museums, history syllabuses and official remembrance (Ahmad, 2008; Dellios, 2007; Kheng, 2003; Manickam, 2003; Rajandran, 2012; Ting, 2014; Worden, 2001). Concurrently, there is spotlight over the relationship between history and self-reflection; what does history mean to and how do we relate to it? Why do we need to know our history and how does the present relate to the past? Such inquiries create what we call 'historical consciousness'. The concept of historical consciousness or historical awareness is a fuzzy concept established by the Europeans and was not unfamiliar in North America in the olden days (Thorp, 2014). According to scholars and historians, historical consciousness is a nexus of relationship between the past, present, and the future. It helps people to comprehend the past to understand the present narrative (Seixas, 2012a; Thorp, 2014). This concept is premised on the fact that people not only appreciate their history but also consciously allow it to influence their actions.

Central to this process of daily making sense of history from the past with the significant research breaking into meaning and operation of historical consciousness (e.g. Rösen, 2006; Seixas, 2012b), there is still much to be understood. Even so, historical consciousness often parallels with collective memory. Again, collective memory is best understood as "broad popular understanding of the past" that is

produced in the intercourse and the dialogue between professional and popular practices of history (Seixas, 2004). Therefore, both collective memory and historical awareness may trigger anxiety. This study examines the process of historical consciousness and historical anxiety. Specifically, it sheds light into how the natives of Sarawak view the history of Malaysia and their role in its historical narrative.

### **Demographic Background of Sarawak**

Sarawak became part of Federation of Malaysia in 1963. It is the largest state in Peninsular Malaysia. The population of Sarawak estimated at 2.74 million comprises three ethnic groups, namely Dayaks (40% whereby the Ibans account for 29.1%), Chinese (25.9%) and Malays (22.3%) (Department of Statistics Malaysia, 2016). Other indigenous groups include Bidayuh, Kedayan, Murut, Penan, Kelabit, Berawan, Penan, Kenyah and Kayan (Malaysia & Ali, 2007).

It is a multicultural state with more than 40 sub-ethnic groups, where each group has its own distinct language, culture, and heritage reflecting the country's ethnic pluralism. Most Dayaks are either animist or Christian.

Thus, cultural pluralism is seen in their dance, food, architecture, life styles and practices. In fact, they have their own leadership structure and governance system, fought tribal wars from time to time, which includes headhunting.

### **Arising Consciousness**

The historiography of Sarawak during the reign of Brooke's family was written mainly by Western historians, who were intrigued with and often sympathised with Brooke's rule (Lockard, 1973; Pringle, 1970). The orientalist images perpetuated in the history books written by Western scholars (Pringle, 1970; Walker, 2002, Steven Ruciman, 1960) is a strain of imperialism, by imparting a set of orientalist discourses and representations on less developed and non-Western countries (Philip, 2012). The national narrative (mainstream history) therefore, uses the same discourses and does not focusing on indigenous people of Sarawak and Sabah (Kheng, 2003) and the focus has been on the West Malaysia.

The history of Sarawak began as a colony when an English adventurer, Captain James Brooke, arrived in Sarawak in 1840. During that period, the indigenous communities lived along the coasts, rivers, forests and plateaus with their own ecological niche and culture. The Sultan of Brunei surrounded the Borneo territory to Brooke in return for his assistance in subduing 'pirates'. James Brooke was installed as the first Rajah of Sarawak that led the reign of White Rajah under the Brooke's family for more than a century (Barley, 2002). The end of the Pacific War led Sarawak being ceded to the British and achieved its independence as part of Malaysia Federation in 1963.

Few studies looked at Sarawak history from local perspectives, to counter the master discourse of the West (Langub &

Chew, 2014). Chew and Langub for instance look at personal narratives in examining the Chinese-Iban intermarriages in Engkelili and Lubuk Antu (Langub & Chew, 2014).

Efforts to link with the past by studying local perspectives were taken seriously by The Society for Rights of Indigenous People of Sarawak (SCRIPS). Telling the history of Sarawak through the lens of native's collective memory is deeply significant to contemporary social and political aspect. Thus, series of oral histories Lepo' Kenyah, Tebalau, Iban, Malay, Bisaya, and Bidayuh communities were published to provide an opportunity for communities to narrate their stories (Then, 2015).

How communities make sense of the past is a key component of historical awareness and historical interpretation introduced by Jorn Rüsen (Rüsen, 2006). When history becomes an issue of concern, the fundamental operation of making sense of history becomes a logic, and it is manifested based on your own self-interpretation. Thus, (Rüsen, 2006).

### **Aims and Objectives**

National history is understood as a specific form of historical representation. In other words, the discourses are aimed at influencing national consciousness. In this study, national narrative (mainstream history) plays its role to reflect questions related to historical consciousness. The aim of this study is to address how the natives of Sarawak view the history of Malaysia and see themselves as part of the historical

narrative (mainstream history), central to the historical consciousness, as part of explaining the history anxiety.

## **METHODS**

The study is inductive and exploratory in nature without specific hypotheses to be examined. This is a qualitative descriptive study and focus group interviews were used to provide an in-depth and rich understanding of communities in Sarawak, how they view the history of Malaysia and discover themselves as part of the historical narrative (mainstream history). By using focus groups, self-disclosure is emphasised to assist participants as a collective to explore and clarify perspectives on a subject with which they are familiar with, thus data obtained is far richer and deeper than one-to-one interviews (Rabiee, 2004).

Two focus groups were conducted at Miri and Kuching, Sarawak. The participants were selected along the basis of purposiveness in each subject rather than representativeness as they can provide relevant information on the given topic and insights that are personally important to them. There are between five and ten people in each session. A Research collaborator was appointed in selecting and recruiting the focus group participants. The participants were chosen based on socio-demographic variables such as age, gender, knowledge about Malaysia's history, ethnicity and profession. An email outlining the objectives of the research was sent out to the participants before the discussion was initiated.

During the discussion, participants were informed about anonymity and confidentiality. Written informed consents were obtained from all participants. The focus group questions were developed based on a review of the literature on historical consciousness; studies related to history trajectories and the constitution were designed to look at how communities in Sarawak view national narrative (mainstream history), and how they see themselves as part of it. The questions and statements were used to guide the discussion, but probes were also used to further explore certain comments or ideas. Data were audio-recorded with permission of respondents. Each group discussion lasted approximately two hours.

## **Data Analysis**

The focus group discussions were transcribed verbatim in two languages, Bahasa Melayu and English. The transcripts were analysed in an inductive process which began with open coding (Strauss & Corbin, 1990). Through a process of comparative analysis, similar codes were classified into categories from which themes were abstracted. Data analysis was facilitated using the computer-assisted qualitative data analysis software (CAQCAS), ATLAS.ti version 7.

## **RESULTS**

Data analysis revealed two major themes: the first theme (Historical Consciousness) embraces the understanding of history, linking personal connection to the past, having a historical inquiry, and making

sense of history with the present. The second theme (Different Views in History) deals with several aspects of experience in national narratives (mainstream history), incorporating new perspectives and experience of the past, conflicting with the current national narrative.

### Historical Consciousness/Awareness

Why and how humans construct narratives, making sense of the past, and tying it to the present, is a uniquely human activity. During the discussion, most of the participants were aware of the meaning of history:

*“History is formations of the concrete and also the formation of a foundation of the countries... when we talk about history we have to go back to those who are the one that originates the formation of the country, the traditions, the politics, the traditions and also the religions of the country so I think our history is based on the formations of the country in Malaysia in 1963”.*

Participant B

The idea of what is history was interpreted by one of the participants as the formation, the base foundation of the country's history. In this sense, historical consciousness was used, in positioning themselves as part of the historical narrative (mainstream history). Although the explanation given was general, the expression of thought shows they were nevertheless trying to relate the past event (collective memory) to the present.

The link between a remote past and present is due to a common identity. There was a need to step away from the dominant discourse that dominated history which carried for centuries due to the hybridization of idea, urban-based reckoning. Therefore, when the moderator asked about how the participants engaged with the new media, some participants said:

*“...I see many young people read the documents, took pictures and post it on Facebook and interestingly this young people interpreted the documents as they read the documents. And another group of young people will interpret, will give the counter interpretation. So, I agree with the fact that the new media has given the opportunity for everyone to look at the document to space and to interpret the documents as their wish. But again, is their interpretation right or wrong. But again, I don't know in history is there any such thing as right or wrong interpretation”.*

Participant D

Findings revealed that these groups of youngsters do have a sense of historical consciousness. Equally, they are mindful of their surroundings and being a responsible citizen. Their knowledge of the past, the intimacy between the past and the present led to their participation in history with the help of the new media, a medium that reunited historical societies -avidly consumed and

shared by the public. However, concerns were raised with regards to interpretation. How to justify and validate the facts based on self-interpretation.

Similarly, some participant expressed their concern towards young adults' historical consciousness which led to anxiety:

*"Most young people strongly fight for Sabah and Sarawak rights. I ask a question in my class...How many of you want Sabah and Sarawak will be out of Malaysia? The majority of my student said that I want Sarawak to be out of the Federation and I said why? Because they look at Brunei and Singapore".*

Participant F

Clearly, the youngsters in Sarawak sees themselves as not part of the Malaysians. They want their rights to be recognised. Hence, it is important to view critically the issue of rights of Sabah and Sarawak in the development of historical consciousness.

### **Different Views of History**

Understanding history and relating to it is part of the national narrative and it is linked to national identity. The history textbook is central to the national narrative. The study showed the contrasting facts of the national narrative (mainstream history). Most respondents understood Sarawak was not part of Malaysia until the formation of Federation of Malaysia in 1963:

*"... even in 1841 when in Sarawak it was only Kuching, my place Lawas is not part of Sarawak at that time..."*

Participant B

Likewise, other participants also expressed the same sentiment about the Federation and the issue of independence. In this context, the fundamental difference is the views of people of Sarawak with regards to their history:

*"...But before this only 31st August 1957, Sarawak Merdeka dalam Malaysia but we must remember Sarawak is not Merdeka dalam Malaysia. Before that Malaysia is not form yet. Sabah and Sarawak and Semenanjung form Malaysia not Merdeka 'dalam' Malaysia. The term 'dalam' is not correct".*

Participant C

The phrase 'Sarawak Merdeka dalam Malaysia' shows different interpretation of the natives. It transformed into a nostalgic rendition of the past for the respondents, questioning the right use of wording. Most of the participants have shared similar perspectives with regards to the Federation of Malaysia formed in 1963. Most respondents felt threatened and insecure. However, collective memory and oral history contribute to how they construe the past and connect it to the current situation.



## DISCUSSION AND CONCLUSION

Ethnic diversity and interethnic relations posed a major challenge to post-colonial nation-states like Malaysia. Since the nation's independence in 1957, good inter-ethnic relations in Malaysia have been seen as vital in establishing national unity and social stability (Yang & Ishak Ahmad, 2012).

The analysis of this study has revealed differences in views and perspectives of national history (mainstream history) by the people of Sarawak. The Internet had given an opportunity and accessibility to the people to share the concept of historical consciousness. Young adults, for example, are aware of their cultural and ethnic history. Thus, it created anxiety and generated new ideas and perspectives of history. Thus, this idea of alternative contestation of history is parallel with the idea of how young adults imagining- based on cosmopolitanism and the idea of multiculturalism (Ang, 2010).

This paper has suggested the need to acknowledge different ethnic groups' contribution and revise the national narrative accordingly, developing more critical interpretations of previous studies (Kheng, 2003; Manickam, 2003; Rajandran, 2012; Santhiram, 1997; Ting, 2014). Thus, being faithful to the facts without serving political or social interest is vital moreover, our 'unofficial' history, critical to our historical sensibility.

This study has revealed overlooking history is part and parcel of historical consciousness, and gaps in memory noted by respondents of this study are

critical reminders of history's capacity to define our sense of self. Indeed, historical consciousness reflects anxiety.

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## **Staff Rating of Deans' Leadership Soft Skills at Three Malaysian Universities**

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### **ABSTRACT**

The emergence of service and knowledge-based sectors has necessitated the need for professionals, such as deans of institutions of higher learning, to acquire and master soft skills. Using Rowena Crosbie's (2005) model of leadership soft skills, this paper discusses the perception frequency implementation of leadership soft skills among deans at three Malaysian institutions of higher learning. To achieve the aim of this study, a survey research design was used to examine the frequency implementation of the eight components of leadership soft skills. Findings show that the deans only moderately implemented the eight components of leadership soft skills.

*Keywords:* Deans, leadership soft skills

### **INTRODUCTION**

University administrators need to communicate and navigate the waves of change effectively. This places emphasis on good leadership and the need to collaborate, connect and work together with people at all levels. An organisation's success largely depends on leaders having directive elements with leadership soft skills. Crosbie's (2005) model of leadership soft skills stresses that leaders need to focus on results and relationships. According to

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Crosbie, administrators need to focus on the eight components of leadership soft skills which are collaboration/teamwork, communication skills, initiative, leadership ability, people development/coaching, personal effectiveness/personal mastery, planning and organising, and presentation skills. In collaboration/teamwork administrators need to be flexible, able to problem solve, and work collaboratively in a team.

Similarly, administrators with good communication skills pay attention to what they hear, do things proactively, remain unbiased, non-judgmental, and treat everyone equally. In addition, they need to be able to recognise issues, problems and opportunities (Abell, 2002), and align teammates around a shared vision (George & McLean, 2007). Administrators with good people development and coaching skills are good teachers who challenge employees to learn and reward them accordingly (Iles, 2001).

In conclusion, Crosbie (2005) argues that leadership development is vital during times of economic and political uncertainty and change.

## **METHODS**

Quantitative data for this study were collected through survey questionnaires. Survey questionnaires were distributed to support staff in three Malaysian universities to gather their perceptions towards their

deans' leadership soft skills. The rationale for choosing support staff from grades 17 to 36 stemmed from their close interaction with their respective deans. This category also was more aware of their administrators' practice of leadership soft skills than lower level categories of support staff.

Since there was no established instrument to measure leadership soft skills, the method used here had to be designed and validated by a panel of experts in leadership. The instrument consists of 80 items. The instrument was administered in both English and Bahasa Malaysia to ensure minimum uncertainty on the part of respondents regarding the questions. In this study, the stratified sampling was used.

## **Research Objective**

The main objective of this study is to identify the frequency implementation of the eight components of leadership soft skills by deans at three Malaysian universities located in Penang, Perak and Perlis.

## **RESULTS**

Descriptive statistics were used to calculate the mean scores and standard deviations of the eight components of leadership soft skills, i.e. collaboration/ teamwork, communication skills, initiative, leadership ability, people development/coaching, personal effectiveness/personal mastery, planning and organising, and presentation skills.

**Perceived Frequency Implementation of the Eight Components of Leadership Soft Skills by the Deans**

The mean scores and standard deviations of the frequency implementation for the eight components of leadership soft skills by deans are shown in Table 1. Table 1 shows the mean scores for the eight components of leadership soft skills ranged from 3.92 to 4.15. This shows that, “planning and organising” ( $M = 4.15, SD = .82$ ) was the most frequently implemented of the leadership soft skills, followed by “presentation skills” ( $M = 4.06, SD = .86$ ) and “leadership ability” ( $M = 4.02, SD = .89$ ). In addition, “people development/coaching” ( $M = 3.92, SD = .96$ ) was the skill least frequently implemented by deans. Based on the information in Table 1, it can be pointed out that deans only moderately implemented all eight components of leadership soft skills.

Table 1  
Mean scores and standard deviations of the eight components of leadership soft skills

Variables	M	SD
Planning and Organising	4.15	.82
Presentation Skills	4.06	.86
Leadership Ability	4.02	.89
Communication Skills	3.99	.87
Personal Effectiveness/Personal Mastery	3.99	.83
Collaboration/Teamwork	3.98	.90
Initiative	3.98	.74
People Development/Coaching	3.92	.96

Table 2  
Levels of implementation of leadership soft skills components by deans

Level	Scale
Low	1.00 - 2.66
Moderate	2.67 – 4.33
High	4.34 – 6.00

**Mean and Standard Deviation of Individual Items in the Eight Components of Leadership Soft Skills**

The study seeks to examine the mean scores on the perceived frequency implementation of the eight components of leadership soft skills by deans.

**Mean and Standard Deviation of Collaboration/Teamwork in the Leadership Soft Skills Components**

Table 3 summarises the mean and standard deviation scores of the 10 items of collaboration/teamwork. It can be seen that the most frequently implemented item in the component of leadership soft skills by deans was “openness in expressing their ideas” ( $M = 4.27, SD = 1.05$ ), whereas the item “finds common ground in solving mutual problems” was the least frequently implemented by deans ( $M = 3.62, SD = 1.14$ ).

Table 3  
*Mean scores and standard deviations of individual items in collaboration/ teamwork*

Items	M	SD
My dean		
1. finds common ground in solving mutual problems	3.62	1.14
2. cooperates in solving mutual problems	4.03	1.13
3. participates in group/team meetings effectively	4.07	1.11
4. encourages diversity of opinion	4.06	1.11
5. helps staff articulate his/her own opinion	4.00	1.17
6. establishes consensus through group/team discussion	3.86	1.16
7. facilitates staff to work collaboratively in a group/team	4.02	1.09
8. is sensitive to the needs of others in a group/team	3.87	1.16
9. is open in expressing his/her ideas in a group/team	4.27	1.05
10. is open in expressing his/her feelings in a group/team	4.03	1.08

### Mean and Standard Deviation of Communication Skills in the Leadership Soft Skills Components

Table 4 displays the mean and standard deviation scores for the 10 items related to communication skills. It is clear that the item “communicates effectively” was

the most frequently item implemented by deans. This conclusion is based on the mean and standard deviation scores ( $M = 4.19$ ,  $SD = 1.09$ ). On the other hand, the item “checks for understanding” was the least frequently implemented item by deans when communicating with their staff ( $M = 3.80$ ,  $SD = 1.14$ ).

Table 4  
*Mean scores and standard deviations of individual items in communication skills*

Items	M	SD
My dean		
1. adapts communication to individual needs	3.94	1.04
2. checks for understanding	3.8	1.14
3. listens attentively to the complete message including body language	3.95	1.08
4. restates to ensure comprehension	3.95	1.02
5. questions to ensure comprehension	4.08	.99
6. seeks to negotiate in solving issues or conflict	4.02	1.08
7. clarifies problems by being open so as to enhance quality of decisions	4.10	1.03
8. resolves conflict by being open so as to enhance quality of decisions	3.82	1.08
9. actively listens to other points of view	4.00	1.06
10. communicates effectively	4.19	1.09



**Mean and Standard Deviation of Initiative in the Leadership Soft Skills Components**

Table 5 shows that when it comes to taking initiative, deans most frequently implemented two leadership soft skills. The

data show that they were able to “react to problems” ( $M = 4.21, SD = 1.01$ ) and to “do things proactively” ( $M = 4.21, SD = .99$ ). However, the infrequently implemented item was “take action before being directed or forced” ( $M = 3.58, SD = 1.19$ ).

Table 5  
Mean scores and standard deviations of individual items in initiative

Items	M	SD
My dean		
1. recognises problems	4.12	1.10
2. reacts to problems	4.21	1.01
3. takes initiative in solving problems	4.16	1.05
4. takes action to achieve goals beyond specific job responsibilities	4.02	1.10
5. faces up to difficult issues	3.93	1.06
6. takes a stand on difficult issues	3.98	1.06
7. makes decision before being directed	3.76	1.14
8. takes action before being directed or forced	3.58	1.19
9. does not demonstrate a bias for taking action	3.80	1.37
10. does things proactively	4.21	.99

**Mean and Standard Deviation of Leadership Ability in the Leadership Soft Skills Components**

Table 6 shows the mean and standard deviation for the items pertaining to leadership ability of deans. For leadership

ability, results from the various items listed in Table 6 suggest that respondents perceived their deans as most encouraging in goal setting ( $M = 4.25, SD = 1.07$ ). Nevertheless, they (deans) were perceived to be least likely to reward their staff ( $M = 3.78, SD = 1.16$ ).

Table 6  
Mean scores and standard deviations of individual items in leadership ability

Items	M	SD
My dean		
1. communicates strategic vision in order to mobilise others to action	4.10	1.04
2. assigns individuals suited to the job based on competencies	4.10	1.04
3. delegates responsibilities to optimise staff skills	4.00	1.07
4. encourages wide participation of staff in goal setting	4.25	1.07
5. encourages wide participation of staff in decision making	3.98	1.14

Table 6 (continue)

6.	encourages wide participation of staff in problem solving	4.01	1.11
7.	gives staff the support to make decisions	3.92	1.19
8.	appropriately uses recognition to reward	3.78	1.16
9.	maintains consistency of high standards of ethical conduct	4.09	1.10
10.	analyses both successes and failures for clues to improvement	3.96	1.05

### Mean and Standard Deviation of People Development/Coaching in the Leadership Soft Skills Component

Table 7 presents the mean and standard deviation scores of the 10 items contained in the people development/coaching component. The leadership soft skill

that was most popularly implemented by deans was to support their staff in education/training programmes ( $M = 4.19$ ,  $SD = 1.06$ ). In contrast, the two skills least implemented items were recognising their staff's exceptional contributions ( $M = 3.79$ ,  $SD = 1.27$ ) and evaluating their staff on time ( $M = 3.79$ ,  $SD = 1.21$ ).

Table 7

Mean scores and standard deviations of individual items in people development/coaching

Items	M	SD	
My dean			
1.	recommends education/training programmes	3.99	1.14
2.	supports education/training programmes	4.19	1.06
3.	recognises performance with positive feedback	4.00	1.11
4.	uses positive feedback to motivate staff	4.01	1.11
5.	uses corrective feedback to motivate staff	3.93	1.08
6.	focuses feedback on specific behaviour not the person	3.90	1.07
7.	recognises exceptional contributions	3.79	1.27
8.	evaluates staff accurately	3.81	1.21
9.	evaluates staff consistently	3.84	1.19
10.	evaluates staff on time	3.79	1.21

### Mean and Standard Deviation of Personal Effectiveness/Personal Mastery in Leadership Soft Skills Components

Table 8 provides the mean and standard deviation scores for items in the personal effectiveness/personal mastery component

related to leadership soft skills. The results indicate that in personal effectiveness/personal mastery, deans were most frequently "open to new information" ( $M = 4.28$ ,  $SD = 1.01$ ), while they least frequently "exploit their personal strengths" ( $M = 3.50$ ,  $SD = 1.22$ ).

Table 8  
*Mean scores and standard deviations of individual items in personal effectiveness/personal mastery*

Items	M	SD
My dean		
1. seeks to understand personal strengths	3.84	1.11
2. seeks to exploit personal strengths	3.50	1.22
3. strives to build competency in areas of weakness	3.90	1.09
4. is personally committed to continuously improve oneself through learning/self-development to enhance performance	4.04	1.04
5. actively works to continuously improve oneself through learning/self-development	4.12	1.01
6. actively seeks new information	4.15	1.00
7. is open to new information	4.28	1.01
8. is open to feedback from others	4.09	1.09
9. functions effectively under stressful conditions	3.94	1.02
10. maintains good relationships under stressful conditions	4.02	1.19

### Mean and Standard Deviation of Planning and Organising in the Leadership Soft Skills Components

Table 9 shows both mean and standard deviation scores of items contained in the planning and organising component of

leadership soft skills. The results reveal that the most frequently implemented skill was “meets commitment” ( $M = 4.27$ ,  $SD = 1.02$ ). Conversely, the skill least frequently implemented by the deans was “prioritising quickly in an environment with many variables” ( $M = 3.96$ ,  $SD = 1.00$ ).

Table 9  
*Mean scores and standard deviations of individual items in planning and organising*

Items	M	SD
My dean		
1. defines short and long range objectives	4.12	1.03
2. uses other resources to achieve planned goals	4.15	1.04
3. prioritises quickly in an environment with many variables	3.96	1.00
4. pursues tasks with persistence despite daily distractions	4.20	.97
5. pursues goals with persistence despite daily distractions	4.20	.97
6. achieves established goals by assigned deadlines	4.13	.96
7. meets commitment	4.27	1.02
8. fulfils promise	4.23	1.07
9. responds to change with flexibility	4.16	.99
10. responds to change with appropriate speed	4.13	.98

**Mean and Standard Deviation of Presentation Skills in the Leadership Soft Skills Components**

Table 10 exhibits the mean and standard deviation scores for all the items in the presentation skills component of leadership skills. Results of the mean scores and

standard deviations imply that deans most frequently “present themselves in a professional manner” ( $M = 4.33, SD = 1.12$ ). However, they least frequently “convince others to accept an idea using appropriate methods of persuasion” ( $M = 3.51, SD = 1.17$ ).

Table 10  
*Mean scores and standard deviations of individual items in presentation skills*

Items	M	SD
My dean		
1. presents himself/herself in a professional manner	4.33	1.12
2. is effective in presenting ideas to others in individual situations	4.21	1.10
3. is effective in presenting ideas to others in group situations	4.25	.07
4. makes effective use of visual aids in presentations	4.08	1.04
5. thinks carefully about effect of words	4.00	1.10
6. thinks carefully about non-verbal actions	3.99	1.03
7. convince others to accept an idea using appropriate methods of persuasion	3.51	1.17
8. invites input/questions from others	4.11	1.13
9. facilitates open dialogue/exchange of information and ideas	4.13	1.11
10. addresses the emotional position of audience	3.98	1.10

**DISCUSSION**

Leaders in institutes of higher education need to be competent in using a soft approach in their leadership style (Siti Asiah, 2011). The findings of this study revealed that the administrators in three Malaysian universities in the north-west region of Peninsular Malaysia recorded a moderate rating in implementing the eight components of leadership soft skills. To deal with this short coming, educational administrators should be knowledgeable and remain vigilant of the concept of soft skills.

**CONCLUSION**

This study shows administrators in public universities in Malaysia need to understand the importance, relevance and value of leadership soft skills.

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## **Factors Influencing Students' Intention to Purchase Green Products: A Case Study in Universiti Utara Malaysia**

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### **ABSTRACT**

Green marketing is a holistic marketing concept where activities from production to sales are done in a way that is favourable to the environment. The purpose of this study is to examine the influence of price, knowledge, eco-label, and peer pressure on the intention of young Malaysians to buy green products. The results of this study showed that price, and peer pressures have an influence on young consumers' intention to purchase green products, while knowledge, and eco-label have no influence.

*Keywords:* Eco-label, green purchasing, intention, knowledge, peer pressure, price

### **INTRODUCTION**

The most critical challenge that green marketers face is identifying and specifying the factors influencing consumers to go green.

The influence of the 2009 Climate Change Conference in Copenhagen has seen the government of Malaysia promising to decrease greenhouse gases' emission per Gross Domestic Product to 40% by the year 2020. (Bernama, 2009). In 2010 the New Economic Model sustainability is one of the economic transformation program goals aimed at making the country a green hub (Alias, Masek, Salam, Bakar, & Nawawi, 2014). This study aims to find the factors that can motivate young Malaysians to purchase green products.

### **Literature Review**

Purchase intention refers to individual's intention to purchase a particular brand.

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Having the intention to purchase a particular product requires comparing it with other similar products available in the market (Teng & Laroche, 2007). Ghosh (1990) found that when a consumer selects a particular product, his final decision relies entirely on his intention (Chen, 2008). Therefore, many marketers believe that one of the best methods to predict consumer behaviour related to purchasing price, is one of the non-product attributes of brand associations.

The literature on green products shows an increase in income usually leads to an increase of the number of people purchasing green products (Lockie, Lyons, Lawrence, & Mummery, 2002; McEachern & McClean, 2002; Storstad & Bjorkhaug, 2003). However, Van-Doorn and Verhoef (2011) contradicted these findings as they found that consumers are less likely to purchase green products if they cost more compared to regular products. Hence the following hypothesis suggests that:

*H1: Price has a significant influence on young consumers' decision to green purchasing in Malaysia.*

Environmental knowledge can be defined as the ecological knowledge a person has on environmental issues (Conraud-Koellner & Rivas-Tovar, 2009). However, having environmental knowledge does not always lead to favourable actions.

Previous studies stated that people who are environmentally informed tend to engage in positive environmental behaviour (Hines, Hungerford, & Tomera,

1987). Accordingly, Mostafa (2009) stated that there is a significant effect between knowledge and green purchasing intention. Therefore, the second hypothesis is:

*H2: Knowledge has a significant influence on young consumers' intention towards green purchasing in Malaysia.*

Eco-labels refer to a product's collective overall environmental performance (Giridhar, 1998). According to Rashid (2009), eco-labels are possibly attractive instruments that are used to inform consumers on the environmental significance of purchasing such a product and serving as means to acquiring a special place in the market. Nonetheless, some researchers suggested that eco-labelled products do not always affect consumers' sentiments towards environmental issues (Wessells, Johnston, & Donath, 1999). While the importance of eco-labelling was still being argued about Erskine and Collins (1997) stated that having an effective and workable eco-label scheme that can really enhance environmental concerns is not an easy task in practice. Based on Sammer and Wustenhagen (2006) who analysed the relative importance of EU energy-labelled products on consumer behaviour and found a positive influence the following hypothesis was formulated:

*H3: Eco-label has a significant influence on young consumers' intention towards green purchasing in Malaysia.*



Peer pressure is the psychological pressure people face when they evaluate their actions with others (Cohan, 2009). It is undeniable that when people are provided with certain information, they find it not satisfying enough in a way that could make them behave in a certain way. The peer pressure is the feeling of guilt created when the individual fails to perform or behave like others. Accordingly, Barua and Islam (2011) stated that peer influence plays a major role in consumers' behaviour; thus for example teenagers seem to have no problem purchasing expensive goods if their peers tend to do so (Grant & Stephen, 2006). Ewing (2001) revealed that social norms significantly motivate environmental friendly behaviour. Lee's (2008) study found that social influence is the main determinant of green purchasing behaviour. Additionally, it was stated that interpersonal communication plays an important role in influencing consumers' green purchasing

behaviour. This is due to the characteristics of social groups where people tend to share the same thinking, desires and habits and can result in supporting eco-friendly behaviour (Zia-ur-Rehman & Dost, 2013). Therefore the last hypothesis can be made:

*H4: Social influence has a significant impact on young consumers' intention towards green purchasing in Malaysia.*

In order to predict consumer's purchase researchers have applied the TRA and TPB extensively. Summers et al. (2006) used TRA and TPB to predict the intention to purchase luxury products and Shah-Alam and Mohamed-Sayuti (2011) uses TPB to study consumer purchase behaviour for halal food, while Tarkiainen and Sundqvist (2005) used it for organic food.

This study uses Ajzen's (1991) Theory of Planned Behavior as shown in Figure 1.

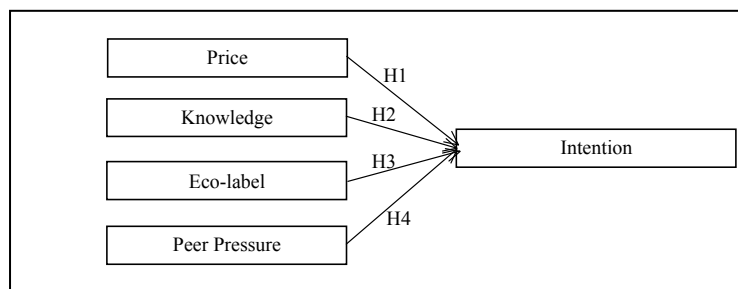


Figure 1. Conceptual framework

**METHODS**

To obtain a snapshot of views and attitude of respondents the quantitative survey approach was used. It applies a systematic

random sampling technique to allow every member of the population to get an equal chance of being selected for the sample distribution (Hurlburt, 2006). The unit of

analysis in this research are local students from the college of business, college of arts and science and college of law at UUM.

The questions in this research were phrased in the form of statements scored on a five point Likert type scale, ranging from 1 “strongly disagree” to 5 “strongly agree” (Gan, Wee, Ozanne, & Kao, 2008). In this study, questionnaires are divided into two

parts; demographic and those related to the variables. In the first part, the respondents’ demographic profiles were sought, and in the second part consists 24 items are listed to measure the independent variables and dependent variables.

Price as used in this study refers to the amount of money needed to buy a green product.

Table 1  
*Price items*

No.	Items
	Price $\alpha = .88$
1	I would choose environmentally friendly goods and services, campaigns or companies if the price were the same
2	I'm willing to pay more for environmentally friendly products
3	If the price of green products is less expensive, I'm willing to change my lifestyle by purchasing green products
4	I'm willing to pay more for groceries that are produced, processed and packaged in an environmentally friendly way
5	I would be willing to spend extra in order to buy fewer environmentally harmful products.

Knowledge was conceptualized in this study as respondents’ understanding of environmental issues and green product’s impact on the environment.

Table 2  
*Knowledge items*

No.	Items
	Knowledge $\alpha = .78$
1	I know more about green products than the average person
2	I know how to select products that reduce the amount of waste
3	I understand the environmental phrases and symbols on product packages
4	I am very knowledgeable about green products
5	I can give people advice about different brands of green products

Eco-label in this study refers to information found in products packaging.

Table 3  
*Eco-label items*

No.	Items
	Eco-label $\alpha = .70$
1	I consider what is printed on eco-labels to be accurate
2	I easily understand the information on eco-labels
3	I'm satisfied with the information available on the eco-label of the green products
4	I believe in the information on green products
5	I appreciate the package/design of green products

Peer pressure was conceptualized in this study as pressure the respondents face when comparing their actions to their peers.

Table 4  
*Peer pressure items*

No.	Items
	Peer Pressure $\alpha = .73$
1	I am encouraged to buy green products by people who are important to me
2	My friends think that I should purchase green products
3	My family thinks that I should purchase green products
4	I learn a lot about environmental friendly products from my friends
5	I always share information regarding environmental friendly products with my friends and family

Intention to purchase green products was conceptualized in this study as respondents' willingness to buy products that are environmentally friendly.

Table 5  
*Peer pressure items*

No.	Items
	Intention $\alpha = .87$
1	I am willing to buy green products
2	It is very likely that I will buy green products in the future
3	I am willing to continuously buy green products
4	I am willing to pay more when purchasing green products

**ANALYSIS**

For the purpose of data collection 250 questionnaires were distributed to Malaysian students in Universiti Utara Malaysia. Out of this number, 194 questionnaires were returned, however three of them were excluded due to the large amount of unanswered questions. The total questionnaires made a total of 191 questionnaires, with a response rate of 76.4%.

The majority of respondents are aged between 18 years old and 23 years old and females outnumbered males, 63.4% to 36.6%. Majority of respondents are Malay (94 or 49.2%), followed by Chinese (73 or 38.2%), Indian (17 or 8.9%) and others (7 or 3.7%).

A reliability analysis was run onto the independent variables, the Cronbach's alpha of all the variables is .925, and the Cronbach's alpha for the dependent variable is .836, while the Cronbach's alpha for the independent variables range between .723 and .893. Results of Cronbach alpha are as follows: price (.63), knowledge (.74), eco-label (.75) peer pressure (.65) and intention (.78). The respective Cronbach's alpha values indicates that the reliability of all the variables was good and therefore acceptable.

Descriptive analysis was conducted to determine the mean scores and standard deviations for the construct. Based on the 191 valid cases being analysed the data is presented in Table 6.

Table 6  
*Descriptive statistics of all principle construct (N = 191)*

Construct	Dimension	Mean	Standard Deviation
Independent variables	Price	3.90	.660
	Knowledge	3.20	.700
	Eco-label	3.79	.633
	Peer Pressure	3.88	.802
Dependent variable	Intention	3.98	.648

The mean scores of all the variables are moderate i.e. above 3. The high mean scores for price of 3.90 suggests that this variable should be taken into consideration.

The standard deviation ranged between .633 and .802, reflecting the existence of acceptable variability in the data and answers varied among respondents.

The results of the correlation analysis proved that a significant and positive relationship with all the independent variables exists, namely the price of green products ( $r = 0.500$ ), knowledge of green products ( $r=0.307$ ), eco-label of green products ( $r=0.457$ ), and peer pressure ( $r=0.441$ ) at  $p<0.01$  as shown in Table 7.

Table 7  
Correlation Analysis

	Intention	Price	Knowledge	Eco-label	Peers
Intention	1				
Price	.500**	1			
Knowledge	.307**	.213**	1		
Eco-label	.457**	.479**	.462**	1	
Peers	.441**	.915**	.131	.382**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

Regression analyses was conducted to examine the relationship between intention to green consumerism and various potential predictors. As it can be seen from Table 8

price, and peer pressure are significantly correlated with the intention to purchase green products.

Table 8  
Hypothesis Summary

Hypothesis	P	
H1: Price has a significant influence on young consumers' intention towards green purchasing in Malaysia	.000	Supported
H2: Knowledge has a significant influence on young consumers' intention towards green purchasing in Malaysia.	.447	Not supported
H3: Eco-label has a significant influence on young consumers' intention towards green purchasing in Malaysia.	.134	Not supported
H4: Peer pressure has a significant influence on young consumers' intention towards green purchasing in Malaysia.	.000	Supported

## CONCLUSION

The results of this study shows that price is always an important factor for young consumers in their purchases. Peer pressure is another important factor in determining consumption behaviour. On the other hand, the study found that knowledge and labels had no impact on students' consumption styles, suggesting more work needs to be done in promoting green consumption.

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## **Conceptualisation and Operationalisation of Islamic Financial Literacy Scale**

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### **ABSTRACT**

Small and Medium Enterprise (SMEs) contributed 29.6% of GDP in Malaysia in 2005, and by 2014 its share was 35.9%. The involvement of SMEs in the Halal industry is also increasing and the business owner involved in Halal production should choose Islamic business financing. However, Islamic financing in Malaysia has been declining. This paper looks at the concept of Islamic financial literacy and to measure Islamic financial literacy. The measurement of Islamic financial literacy in this paper is based on the principle of Islamic finance, and includes concepts such as Mudarabah, Musharakah, Ijarah, Murabahah, Istisna and Quard Hassan. Through the Islamic financial intelligent (i-FiQ) the study hopes to advance Islamic finance.

*Keywords:* Financial literacy, halal, Islamic financial intelligent, Islamic financial literacy

### **INTRODUCTION**

In Malaysia, Small and Medium Enterprises (SMEs) contributed 29.6% of GDP in 2005, and increased to 35.9% in 2014, and of

which the Halal sector is among the most significant.

Halal products and services are not only accepted by Muslims but also non-Muslims too. However, while doing Halal business, a business owner should not only focus on the Halal production, they must also adopt Halal financing for their business which commonly known as Islamic financing. SMEs may need financing its business to sustain in the market. Usually, a small business started its business using own capital or from family and friends. However, in a view to expanding the business, there

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are times where the company needs new investment. One way they can get money to expand is from business financing.

In Islam, Riba' or interest is not permitted. A business owner involved in Halal production should choose Islamic type business financing.

The global Halal market is projected to be worth USD2.3 trillion annually (HDC, 2014). However, study directed by Reuters found that only 50% of the businesses passed the test from AAOIFI (Accounting and Auditing Organization for Islamic Financial Institutions).

Thus although the Halal food industry maybe expanding Islamic financing in Malaysia is declining (Figure 1). This paper suggests the gap between Halal industry and Islamic financing industry is due to Islamic financial literacy among business owners. This article aims to develop Islamic financial literacy measurements to assess the level of understanding and the level of literacy among SMEs business owners towards Islamic finance. This paper will measure financial literacy from an Islamic perspective.



Source: Islamic banking sample, KFHR

Figure 1. Islamic financing growth trend by country



Figure 2. Islamic financing applications (hotel and restaurants)

**LITERATURE REVIEW**

Literacy has been defined earlier as the ability to read and write (Zarcadoolas, Pleasant, and Greer, 2006). From the Islamic perspective, knowledge is necessary for Muslim life. The first word that given to the prophet Iqra, means read learn and understand. The Quran 6:119 also explains that knowledge and literacy is essential for making the differentiation between halal and haram.

The idea of financial literacy is not something new; many researchers have studied it, and most studies found that financial literacy can influence a person’s behaviour in financial matters (Xiao, Ahn, Serido and Shim, 2014). Kim (2001) defines financial literacy as a basic knowledge an

individual needs to survive. On the other hand, Bhabha, Khan, Qureshi, Naeem and Khan (2014) defined financial literacy as a mishmash of awareness, knowledge, skill, attitude and behavior essential to make sound financial decisions and also finally achieve individual financial wellbeing. Huston (2010) divided financial literacy into four main categories. It includes personal finance basics (time value of money, planning, economy), borrowing (credit cards, loans, mortgages), saving/investing (stock, bond, mutual fund, retirement savings) and protection (insurance, estate and tax planning, identity safety). He also conceptualised financial literacy as having two dimensions: understanding (personal financial knowledge) and use (personal financial application) (Figure 3).

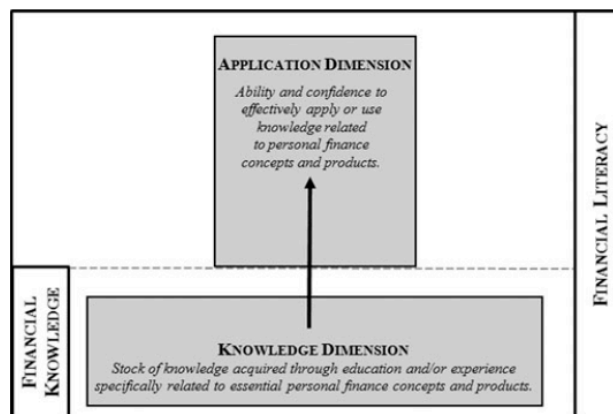


Figure 3. Concept of financial literacy by Huston (2009)

There are only a few studies that focus on Islamic financing. Jaafar and Musa (2013) said that the level of awareness and

knowledge of Islamic financing can affect the attitude towards Islamic financing. To show the relationship between Islamic

financial literacy and individual behaviour towards Islamic financing the Integrative Model of Behavioural Prediction (Fishbein, 2000; Fishbein & Yzer, 2003) theory was used. The proposed framework is as follows:

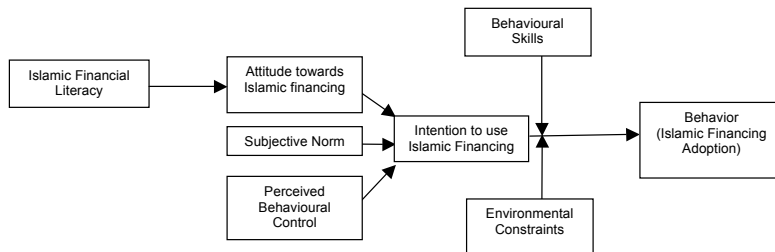


Figure 4. The proposed conceptual framework with hypothesis

**METHODS**

The measurement for Islamic financial literacy developed in this paper focuses on Islamic finance method such as Mudarabah, Musharakah, Ijarah, Murabahah, Istisna and Qard Hassan.

Since the measurements for Islamic financial literacy developed for this study had to be tested Churchill (1979) structured framework was used. The steps are as follows:

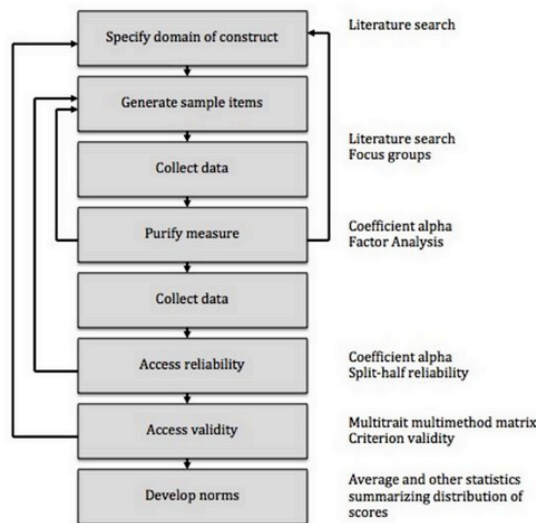


Figure 5. Churchill's 8 steps scale development process

This process of scale development by Churchill (1979) chosen because of its rigorous recursive cycle of steps that based on reliability and validity assessment of the instrument.

A set of questionnaires were developed for this study and 30 respondents chosen for the pilot test. For data collection 200 respondents generated using G\*Power 3 of food service operators. . Since this study involves Halal food service business in Malaysia a sampling technique was used taking into consideration location, registration, owner’s status, and status related to adoption of Islamic financing.

Data analysis will use Smart-PLS software for Partial Least Squares Structural Equation Modeling (PLS-SEM).

**PROPOSED MEASUREMENT ITEMS FOR ISLAMIC FINANCIAL LITERACY**

This study will adapt the categories of financial literacy by Huston (2010) for an Islamic financing perspective. The items and questions were on Bank Negara Malaysia Shariah Resolutions in Islamic Finance. Table 1 below shows the summary of categories and items for the proposed measurement.

Table 1  
*Islamic Financial Literacy Scale Items*

Category	No.	Items	Test-based Question	Answer
Basic Concepts	IFL01	Prohibition of Riba’	You lend RM50 to your friend, and after one month you want the person to repay you RM60 including interest. This situation consists element of: A. Maysir B. Riba’ C. Gharar D. Do not know	B
	IFL02	Prohibition of Gharar	In Islamic finance perspective, the terms of uncertainty and deception referred to: A. Riba’ B. Gharar C. Musyarakah D. Do not know	B
	IFL03	Prohibition of Maysir	In Islamic finance perspective, buying shares on a short-term price fluctuation is one elements of: A. Maysir B. Riba’ C. Mudarabah D. Do not know	A

Table 1 (continue)

Borrowing Concepts	IFL04	Mudarabah	In Mudarabah, the capital provider is the only party that born the losses A. True B. False C. Do not know	A
	IFL05	Musyarakah	In Musharakah, a partner who invest RM1,000 of investment capital has right to specify from beginning that his/her profit should be RM1,000 per year A. True B. False C. Do not know	B
	IFL06	Ijarah	In Ijarah, the asset usually not returned to the lessor A. True B. False C. Do not know	B
	IFL07	Murabahah	Borrower is the person who buys the goods in an Islamic finance trade credit management A. True B. False C. Do not know	B
	IFL08	Istisna	In Istisna concept, the price must be fixed: A. From the beginning B. At the end of contract C. At the middle of contract D. Do not know	A
	IFL09	Qard al Hassan	In Qard al Hassan, when you borrow RM100, what amount you need to repay? A. RM95 B. RM100 C. RM110 D. Do not know	B
	IFL10	Rahn	A contract that makes something as a guarantee to the completion of settlement of debt is a concept of: A. Ujrah B. Wadi'ah C. Rahn (Al Rahn) D. Do not know	C



Table 1 (continue)

	IFL11	Ujrah	Islamic Credit Card based on the concept of Ujrah can offer cash back rebate to the cardholder A. True B. False C. Do not know	B
Saving / Investment Concepts	IFL12	Wadi'ah	In Wadi'ah saving account, Islamic bank can hold your deposit when you want to use your money A. True B. False C. Do not know	B
	IFL13	Waqf	Once you make a waqf of an asset, the asset can not be sold. A. True B. False C. Do not know	A
Protection Concepts	IFL14	Takaful	Which of the following is not the elements of Takaful A. Risk-sharing B. Profit-sharing C. Fixed Return D. Do not know	C

### ISLAMIC FINANCIAL INTELLIGENT (I-FIQ)

Lusardi (2008) divides two type of financial literacy: basic and advanced literacy. Basic financial literacy not only evaluates the level of financial knowledge but also its link with household financial behaviour. However, to make saving and investment decisions, a person needs more than fundamental financial concepts. Lusardi includes several concepts for the advanced financial literacy including the relationship between risk and return; how bonds, stocks, and mutual funds work; and basic asset pricing.

On the other hand, Nik Kamil, Musa & Sahak (2014) propose financial intelligent in their study. Financial intelligent introduced by Nik Kamil et al. (2014) covers a broad range of contexts suggests adequate knowledge and aptitude of basic financial concepts and their application. This paper wants introduces the concept of Islamic financial intelligent that is having an adequate set of knowledge and aptitude of Islamic finance concepts and their application in making financial decisions.

A set of the questionnaire will be distributed to a group of the business owner

to see the level of Islamic financial literacy among them. The answer then will be scored and calculated to see whether the business owner is illiterate (low) or literate (medium) or intelligent (high) in Islamic finance.

## CONCLUSION

It assumed that when a business owner is a literate on Islamic finance they will adopt Islamic financing, thus allowing Islamic finance to develop and create strong links in the Halal industry. This paper proposes 14 items to measure Islamic financial literacy. This paper also suggests three different group which are the illiterate person on Islamic finance, a person which literate on the Islamic finance and person which intelligent on the Islamic finance aspects. It helps to measure the different level of literacy among person, particularly for the business owner. By differentiating those group, it may assist the government or policy maker and also banking institution to create policy or marketing approach differently for those different groups.

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## **Exploring the Roles of Social Media Content Marketing (SMCM) Towards Return on Investment (ROI): A Conceptual Paper**

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### **ABSTRACT**

Social Media Content Marketing (SMCM) is a tool-kit to increase sales. Content marketing is a crucial element which can increase the return on investment (ROI). The purpose of this study is to identify the impact of SMCM towards the ROI. It aims to develop a SMCM framework which can maximise a firm's ROI performance.

*Keywords:* Brand Awareness, content Marketing, Return on Investment (ROI), Social Media Marketing

### **INTRODUCTION**

Social media can be considered as an interesting information dissemination tool requiring only minimal effort and cost compared to other traditional types of advertising and publicizing (Romero, 2011).

Today, consumers are overwhelmed by information that maybe sourced social media. It is important for the company to

provide valuable SMCM to ensure brand loyalty. Flood (2016) states that before launching a social media campaign it is necessary for the firm to analyse the target audience and thereby determine the platforms are suited to achieve their goals.

On the other hand, good SMCM can also increase the ROI performance for the company. Scholars and practitioners in related fields believe ROI calculated based on financial and nonfinancial values can potentially improve accuracy and usefulness (Meng and Berger, 2012). One of the important elements in sustaining the decent ROI is building a relationship with customers. Stack and Michaelson (2010) also concluded the five major nonfinancial indicators: credibility, trust, reputation,

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relationships, and confidence, can influence an organization's social and financial performance.

This paper is structured as follows. Firstly, it examines the significance of SMCM for the business. It presents a simple

SMCM framework to determine the ROI and provides an overview of SMCM and reasons for their applicability in business.

## SOCIAL MEDIA AND CONTENT MARKETING

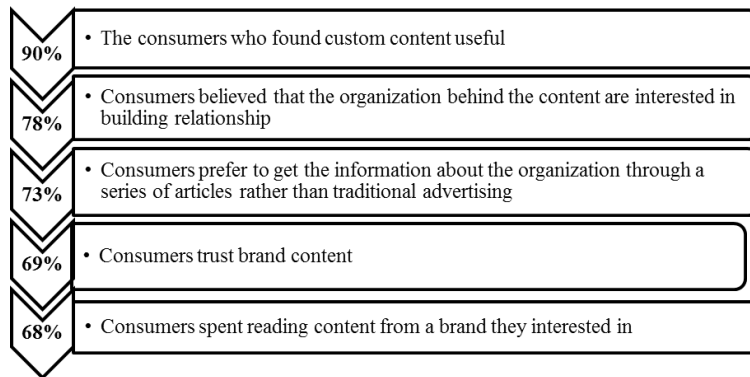


Figure 1. People trust and value brand content

Sources: from Patel (2015)

Figure 1 above indicates how importance of content marketing in attracting consumers. There are 90% of them that found the custom content very useful and 78% of them believe that by having good content marketing it can build the relationship between organization and consumers. In this new era of the business environment, many rivalries are competing with each other to gain customers. No one of the firms escapes from having the social media as their platforms to spread the awareness about their brands. However, not all will survive to the top of consumers' journeys that end with purchasing and have a strong rapport. Patel (2015) states that to generate the most leads and increase revenue, firms need to create more useful content as 70%

of people would rather learn about products through content.

According to Content Marketing Institute (2015), content marketing can be defined as a strategic marketing approach that focuses on distributing the valuable, relevant and consistent content to attract and retain the targeted consumers thus drive profitable customer action. Kiisel (2016) states that content marketing is all about sharing information that is considered useful to customers and prospective customers via articles, blogs, videos, and other media. Content marketing can also be considered as a process of indirect and directly promoting a business or brand through value-added text, video, or audio content, both online and offline (Gunelius, 2011).

At present, companies tend to use social media as a platform to promote their products and create awareness.

**SOCIAL MEDIA CONTENT MARKETING (SMCM) AND ROI**

Figure 2 shows a SMCM framework that can affect the ROI performance of firms. According to Romero (2011), content marketing enables firms to achieve multiple objectives, but it must be made clear that to understand the return, it is necessary to work

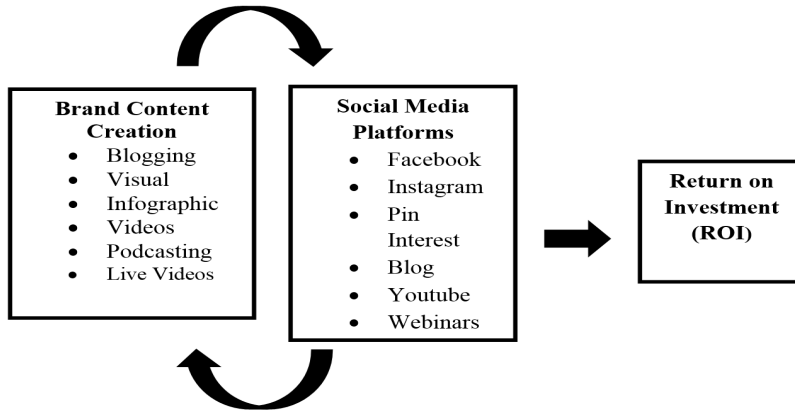


Figure 2. SMCM and ROI Framework

at different levels, and each analysis requires a particular design as well as an analyst. According to Miller (2008), there are four types of SMCM which should be focused on the organization in determining good ROI and it includes Retail, E-commerce, customer service, and publishing.

According to Vaynerchuk (2011), there is no specific formula to calculate social media marketing for ROI, because social media involves human interactions (i.e. Positive/negative reviews, Word of Mouth), which cannot be calculated mathematically. SMCM works on enhancing the ROI of the company through fan data. According to Fedotova (2015), the content that has been tailored to big data can help improve fan engagement, increase brand exposure and create more commercial opportunities thus

lead to the increasing of ROI. Furthermore, there is no exception for the Business to Business (B2B) companies as they have to be good at SMCM to maximize their ROI performance. It involves a significant effort for B2B companies to create an effective SMCM to increase their sales. Sixty to 70% of B-to-B marketing content goes unused, and only 42% of B-to-B marketers think that they are good at content marketing (Bickner, 2014). In a nutshell, fan data or big data with good content marketing could be such an effective way to help the firms to increase their ROI.

Web 2.0 provides businesses the opportunity to generate and publish content through different social media platforms. According to Kilgour, Sasser and Larke (2015), the corporation which develops

relationships with brand advocates who acted as social media influencers can have good return on investment (ROI).

In creating effective content marketing, the firm should have a creative strategy to engage with the customers. Ashley and Tuten (2015) explain that creative strategy consists of both message content and execution and includes the notion of designing communications in a way that increases the likelihood it can produce the desired effects on the target audience. Furthermore, to attract the consumers to have good brand experience, it is important to provide precise information to consumers. According to Virgillito (2015), content marketing should be about creating an experience that people love to share.

According to Viveiros (2012), a small company should know that social media can help make money by creating engagement with consumers and the conversation is the way to increase sales. On the other hand, some of the firms tend to encourage their employees to share the companies' information on social media. Springer (2015) says employees are willing to share with whoever is running the program so that they can be active on social media and build their personal brands and promote the company and improve its ROI.

## **METHODS**

This study involves a qualitative and quantitative approach. For the qualitative stage, an interview of online shopping consumers and entrepreneurs who use social media marketing to promote their

brands was conducted. Respondents were given open-ended questions with the objective of deducing consumers' experience of choosing brands and obtaining customer profile.

Secondly, a demographically diverse group of people was assembled to participate in a guided discussion to measure the reaction of customers towards different product brands. This focus group is targeted on online shoppers and entrepreneurs that use the social media marketing as their tool to promote brands. A moderator will present certain content marketing of different approaches to excavate the experience, feeling and preference of the respondents towards the brand. After that, they have to answer a few provided questions about what they have seen from the visual display, thus find what their responses are towards the display of content marketing. An appropriate meeting room with adequate seating is required during the session. The interview and the whole session will be recorded and transcribed.

Besides that, for the qualitative method, there will also be an experiment to discover the senses of the respondents. It involves sight and hearing senses. For the sight experiment, a moderator will play with the visual advertisement of certain brands on the projector (without sounds) that includes the content and pictures from the social media. Then, a few questions regarding the advertisement will be asked to the respondents. Otherwise, for the hearing sense, the moderator will show the advertisement (with sound background) like



a short video of the brands within the panels. Then, the groups will require expressing their emotion and experience about the brands and the content of the videos.

In the second phase, a quantitative design will be implemented to proceed into further step on research like distributing the questionnaire to the respondents. It is necessary for the researcher to have the questionnaire pre-tested to make sure that the questions apply to achieve the objectives of the study. The pilot study is an attempt to predict an appropriate sample size before proceeding with full-scale research projects. This study involved self-administrated survey and it will to 200 respondents. Twenty samples would be the selected entrepreneurs, and 180 of the samples would be for online shoppers.

A simple descriptive analysis of aggregated data such as the mean rating and standard deviation of a specified attribute will be adopted to provide beneficial social media marketing input like customer experience of the fashion brand. The exploratory analysis (EFA) will be applied to determine the factorial structure of the construct (customer experience), and confirmatory factor analysis (CFA) will be conducted to make the consistency of researcher's understanding of the nature of the factor fit to the data is obtained from the measurement method.

### **EXPECTED CONTRIBUTION**

The new model of Social Media Content Marketing (SMCM) will allow practitioners to improve their branding strategy through

high impact content marketing, and through it elevate the ROI.

### **CONCLUSION**

SMCM plays a major role in boosting the ROI for a business as it allows consumers to be informed about brands, providing them with valuable product content. The firms that can produce high-quality SMCM have high potential to generate more brand awareness and also experience strong boost in their ROI.

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## **Unscrambling Determinants of Islamic Retail Experiential Value (IREV) at Indian Muslim Food Retail Outlets: A Focus Group Analysis**

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### **ABSTRACT**

Retail experiences can represent either a hedonic or utilitarian value in the experience consumption. For Muslim customers, their perception, evaluation and emotions in experience consumption are influenced by Islamic Values through the centrality of faith. Therefore, retail food outlets need to deliver suitable concept anticipated by Muslim customers which are religiously conscientious. Based on the Stimulus Organism Response (S-O-R) paradigm, this qualitative study aims to explore Muslim customers experience in food consumption. The focus group technique was conducted to produce an in-depth understanding of the topic, with ‘environmental stimuli’ and ‘customer emotions’ were the main themes being discussed in the context of Indian Muslim restaurant. There were two groups of respondents in this study; the Millennials and Gen Xs who resided in Klang Valley and this paper summarizes the main findings from this focus group analysis. Among others, it was found that the components of Islamic Values embedded in the Muslim customer’s spirituality have inspired Islamic Retail Experiential Value theory building.

*Keywords:* Emotional states, environmental stimuli, Muslim customers, retail experience

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### **INTRODUCTION**

Islam is the predominant religion in Malaysia and Islamic values dictate Muslim customers into complying with the principles of *Halal* (lawful) and *Haram* (unlawful) in food consumption. Malaysia constitutes of diverse culture and multilingual society, thus, increasingly with the resurgence of greater

Islamic faith, the phenomenon of eating at Indian-Muslim restaurants or famously known as “Mamak” restaurants has gained hypersensitivity among Malaysian Muslims, as to whether it is safe and trustworthy according to *Sharia*’ law.

In a survey conducted by Ahmad, Abaidah, and Yahya (2013), they concluded that Malaysian Muslims had taken it for granted that all foods produced and marketed in Malaysia are *halal*. Therefore, to explore further the above assertion, this study was targeted at Malaysian Muslim urbanites in Klang Valley, as urbanization has encouraged the residents to practice dining out lifestyle (Ali & Abdullah, 2012). The researchers had selected Indian Muslim food outlets in the context of this study due to the business expansion, which was reported to reach 7500 premises in the whole country in Malaysia and is fast becoming a favourite eatery among Malaysians across race, gender and age (Bakar & Farinda, 2012). Another reason for this selection is, a prior research conducted by Shari, Khalique and Malek (2013) had highlighted the unethical business practices by Indian Muslim restaurant operators in some areas in northern Malaysia. They pointed out that, in order to attract Muslim customers, these restaurants portrayed the Islamic identity by using Islamic-signalled brand names, displaying Quranic verses and employing Muslim look-alike workforce. Furthermore, there were also incidences where these restaurants displayed fake *halal* logos and thus, did not meet the criteria of a *halal* compliant restaurant.

The purpose of this qualitative study, therefore, is to explore Muslim customer experience through identifying their emotions towards environmental stimuli.

This study adapts the Stimuli-Organism-Response paradigm (Mehrabian & Russell, 1974) as underpinning theory to investigate predictors of behaviour, and assumes emotion is dependent on stimuli. The S-O-R paradigm will explicate the relationship between environment stimuli, retail experience and emotional outcomes. The focus group technique was deployed to facilitate the research framework.

## LITERATURE REVIEWS

Mehrabian and Russell’s (1974) theory (S-O-R paradigm) was used for environmental psychology studies. The idea was later extended to measure emotional states. They applied three dimensions, Pleasure, Arousal and Dominance (P-A-D) to represent the emotional effects and measured the effect of physical stimuli on a variety of behaviours. The physical stimuli encompassed all things that were generally understood in retail environmental namely products, brands, logos, furniture, fittings and design layout. Pine and Gilmore (1999) defined stimuli as “cues” which ideally trigger positive cognition and emotional responses from the customer. When considering the relations, it begins with a customer who processes the stimuli, interpreting them as inputs in association with their knowledge, beliefs and values (Spena, Carida & Melia, 2012). The

proposition states that retailers could create experiences by developing an interplay between environmental stimuli and social interactions during service encounters.

Indeed, Ali and Amin (2014) acknowledged the importance of the environment stimuli in determining customer experiences in the travel and

hospitality industry. They asserted that customers who have higher perceptions of the physical stimuli are more likely to have positive emotions, satisfaction and behavioural intentions. Figure 1 illustrates the relational bond between environmental stimuli, emotional states and behavioral intention under S-O-R theory.

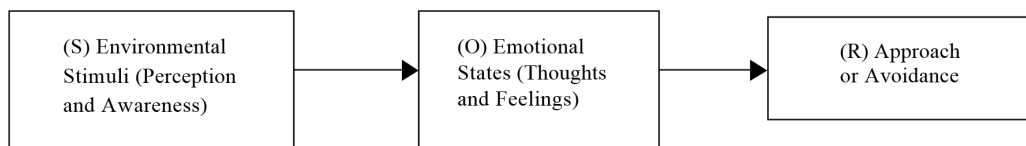


Figure 1. The Stimulus-Organism-Response

Source: (SOR) Paradigm (Mehrabian and Russell, 1974)

According to Sachdeva and Goel (2015), customer experience is a journey composed of variety of environmental components which can trigger customer emotionally, physically and intellectually. Knee (2002) concurred that retail customer experience consists of environmental factors, emotional dimensions involving five senses and functioning of the retail outlets.

Emotion is recognized as a complex state of feeling that results in physical and psychological changes that intelligently guide customer thinking and behaviour. In emotion theory (Izzard, 2009), emotions are driven by experiential or feeling components. The principles explained the sequence of events first involves a stimulus, followed by the thought which then leads to the experience of a physiological response. The spectrum of feelings is a medium of a consumer judgment where they

make a decision based on senses in their surroundings which immediately operating their emotions as a valuable signal (Pham, 2004). In a retail setting, environment act as a mechanism for interaction between a retailer and its customers (Same & Larimo, 2012), in where the environment could stimulate customer emotional experience.

Given that, retail customer experience is understood as customer's perception and interaction, through each touch point in the retail settings; experiential value could be an aggregation of interactive, relative, preferred, personalized and it could change as experiences accumulate. To conceptualize experience-based value, Mathwick, Malhotra and Rigdon (2001) developed a scale, expressing as a perceived, relativistic preference, implying a holistic assessment of the experience arising from interaction within a consumption setting. They typified experiential value

into four quadrants along two dimensions of value, the utilitarian (intrinsic) versus hedonic (extrinsic) values in consumption. The hedonic (intrinsic) value relates to experiential perspective anticipated from the feelings whereas utilitarian (extrinsic) value tends to serve the consumption needs. The Experiential Values Scale (EVS) for hedonic composed of Playfulness and Aesthetics while the utilitarian is composed of Consumer Return on Investment (CROI)

and Service Excellence.

In the typology that described the degree of individual participation, it indicates that a customer act as a viewer (active) or a receiver (participative) during the interaction in a manipulation of an environment. Subsequently, four distinct types of experiential values were shown as in Figure 2.

Despite the growing body of research in experiential value, this exploratory study

<i>Dimensions</i>	<i>Active Value</i>	<i>Reactive Value</i>
<i>Intrinsic (Hedonic)</i>	(i) Playfulness	(ii) Aesthetics
<i>Extrinsic (Utilitarian)</i>	(iii) Customer Return on Investment (CROI)	(iv) Service Excellence

Figure 2. Typology of Experiential Value Scale by Mathwick, Malhotra and Rigdon (2001)

is the initial phase of the research process to enhance the body of knowledge in understanding Muslim customer behaviour particularly in restaurant services and how Islamic Values determine retail experiential value. Moreover, at present, the current focus of experiential value literatures is centred on the conventional customer, whereas the assumption underlying the plausible theory is, Muslim consumers behaviour are established upon the Islamic Values dimensions This value can be explained through a link to God (Allah) commands and build through the Islamic faith, belief and practices Likewise, Sandiki (2011) writes that Islamic Values has been regarded as a common descriptor that explains and predicts the behaviour of Muslim customers.

Therefore, this study addresses the

gap in the literature by exploring Muslim customer cognitive and emotive in a restaurant retail setting. To provide a strong foundation, the researchers began by conducting focus group discussions to unscramble the determinants of Islamic Retail Experiential Value.

In this discussion, the panels represent Malaysian Muslim restaurant patrons, and they were given an opportunity to express their emotions and share experiences over the credibility, integrity and reputation of Indian Muslim restaurants in Malaysia as an Islamic restaurant.

**METHODS**

This study emphasized on two themes, which were restaurant environment stimuli and Muslim emotional states. In this context, the researchers explored the complexity



surrounding food services to give a better understanding of the theoretical framework and to bring meaning to a phenomenon (Des combe, 2010). According to Krueger (1998), a focus group is a technique to be used in the preliminary stages of a study to evaluate and obtain information. This exploratory investigation was carried out in October, 2015 and moderated by two facilitators to draw upon the feelings, beliefs, experiences, opinions and reactions in patronizing Indian Muslim restaurant (Mamak) in Malaysia. The panels were asked to share their experience to help to unravel some new points regarding the topic being studied. To begin the process, the researchers outlined the criteria for the eligibility of the participants as being Malaysian Muslims whose characteristics include regularly frequenting the Indian Muslim restaurants. The panels were recruited through screening sessions based on the likelihood of visiting more than three times in a month and recently visited in less than seven days before the discussion took

place. The respondents were segregated into two; Group A, the Millennia's; those born between the years of 1981 and 2000 and Group B, the Gen X's; those born between the years of 1965 to 1980. It was reported that Millennia's is a key customer segment for food service in term of market size, lifestyle and consumption habits, while the Gen Xs which is more towards family oriented (The Nielsen Global Generational Lifestyles, 2015). The participants were mainly residents from Shah Alam, Kuala Lumpur and Klang Valley areas. Researchers noted that Millennia's and Gen X's are having different motives to patronize the Indian Muslim Restaurants, as tabulated in Table 1.

The focus group sessions were conducted in a classroom environment, and panels were furnished with guideline scripts and materials related to this study. The main questions/issues posed to them were inspired by S-O-R theory as in Table 2.

Table 1  
*Focus group demographic profile and motives*

Respondents Profiles	Group A: The Millennia's (8 respondents)	Group B: Gen X's (9 Respondents)
Gender		
Male	3	4
Female	5	5
Occupation		
Professional	1	3
Semi- Skilled	4	5
Students	3	0
Others	0	1
Status		

Table 1 (continue)

Respondents Profiles	Group A: The Millennia's (8 respondents)	Group B: Gen X's (9 Respondents)
Single	6	2
Married	2	7
Motive	More likely for social gatherings, meeting friends and pleasure (Hedonic)	More likely for eating purposes (Utilitarian )
Number of visits in a month	3-10 times	3-5 times
Reasons to visit	Affordable, decent seating, and easy to access at any time	Moderate price and varieties of dishes

Table 2

Focus group open ended questions based on S-O-R theory

Stimuli (S)	(O) Emotional States	(R) Response
1) What do you screen first before you decide to patronize any Indian Muslim Restaurant?	1) Why Islamic Value becomes an important factor to you in deciding places to eat?	1) What are your responses when you feel positive after consuming food in your favourite restaurant ? restaurant?
2) What are the Islamic environmental attributes you perceived in an Indian Muslim restaurant ?	2) From your experience, describe your feeling when you patronize in an Islamic oriented restaurant.	2) Describe your future intentions in patronizing a restaurant that has fulfilled your expectations.

Each participant was given time to suggest and share their opinions, and this was followed by an open discussion. The focus group sessions were audio-taped, transcribed and analysed by the researchers as the panels' feedback could guide researchers in developing questionnaires.

**PRESENTATIONS OF DATA FINDINGS AND INTERPRETATION**

The findings were focused into two themes; First, the environmental stimuli and second, the emotional states.

As the participants of this research had

individual belief and experiences, every opinion was clearly articulated and voices of every participant were diligently noted. At the end, Group A and Group B identified ten indicators of environmental stimuli in an Indian Muslim restaurant (Figure 3).

As exemplified in the histogram, majority of the respondent cited indicated *Halal* & certification as the prominent reason in patronizing Indian Muslim Restaurants in Malaysia.

To interpret it, *Halal* certification represents the compliance that the restaurant food comes from the legitimate sources, safe

Determinants of Islamic Retail Experiential Value at Food Retail Outlets

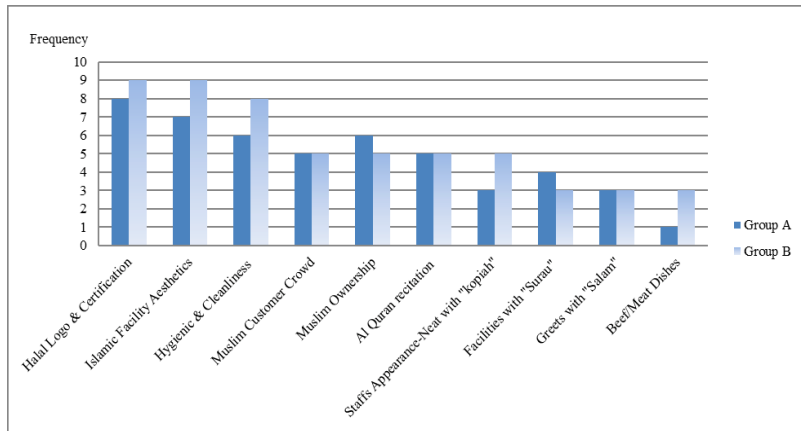


Figure 3. Histogram of environmental stimuli by focus group

and pure according to the *Sharia* law. This finding corresponded with a study made by Ibrahim and Othman (2013) indicated *Halal* is one of the most influential aspect in determining food service quality, customer loyalty and satisfaction. In addition, a research in Muslim preference towards food consumption conducted by Salleh, Suki and Sondoh (2012) has elucidated that Muslim customers rank their highest preference on the *Halal* logo, followed by hygienic handling, product safety, Islamic friendly outlet, Islamic friendly workforce, location, Muslim owned and Muslim crowd.

The second highest determinant was Islamic facility aesthetics .Facility aesthetics described as the architectural design, interior design, décor that reflect the overall attractiveness of the restaurant environment. Enhances the religious experience. Hence, the panels mentioned that the Indian Muslim restaurant name, signage, furniture and fittings represent the facility aesthetics features. According

to Ryu and Jang (2008), facility aesthetics was significant antecedent of customers' pleasure, arousal and influence behavioural intention. To align with Islam, Mohamed and Resay (2008) claimed that features such as Islamic signage, slogans, calligraphic and Islamic decoration are among the retail design that could stimulate Muslim to consume. Indeed, this claims and beliefs are also found in our study.

The third highest determinant ranked by the panels were cleanliness or hygiene. Hence, the respondents distinguished two types of cleanliness; one related to human workforce; and the second related to the restaurant environment such as equipment, utensils, furniture used in the dining area, kitchen and the toilets. From an Islamic standpoint, cleanliness is part of Muslim faith, and when the panels were questioned about hygiene or cleanliness, they had similar opinions that cleanliness is a critical point when patronizing a restaurant. The objective of hygiene and cleanliness is to ensure that the foods served in the

restaurant are clean, pure and not harmful to human health.

Further, the panels debated on the issue of the diversity of the workforce who serve at the Indian Muslim restaurant. This issue received attention as it was very subjective to differentiate the restaurant owner’s, the chef’s and the waiter’s religion. However, the respondents claimed that workers appearance with decent Islamic clothing would denote that the restaurant is an Islamic oriented restaurant. Other than that, the panels highlighted tangible and intangible stimuli in the restaurant such as the composition of Muslim customers, Muslim owned restaurant, appropriate entertainment, prayer area, Islamic greetings and type of dishes served which connotes the elements of Islamic Values in

restaurant retail setting.

To comprehend the essence of the discussion, the second theme discussed on the relational bond between environmental stimuli and emotional states. Table 3 retrieved statements quoted from Group A and B which enlightened the panels’ perception along four highest determinants of environmental stimuli and customer emotions in consuming at the Indian Muslim Restaurants.

Giving the above sentiments, the researchers initiated the potential construct of Islamic Retail Experiential Value theory was associated with elements of Islamic Values imbued in Muslim spirituality. It has been proven from the panels in-depth emotions as indication of their faith and beliefs. The sentiment of fear, guilt and

Table 3  
*Environmental stimuli based on focus group perception*

Key descriptor	Group A and Group B responses
<i>Halal</i> logo and Certification	<p>“... <i>Halal</i> is a core factor that firstly come across my mind before deciding to eat at the Indian Muslim Restaurant. As a Muslim, I am concern whatever goes into my body must come from the right sources because it will affect my spirit and soul.”</p> <p>“..I frequently visit a restaurant that is familiar to me, my friends and family that display a genuine <i>Halal</i> logo. There will be no return if I feel doubt and uncertain, I will not recommend to others because it pay my trust.”</p> <p>“... I will seek for <i>Halal</i> logo first, then the Islamic atmosphere and Muslim workers, living in the urban area with mix ethnicity sometimes requires me to be extra careful when it comes to food intake because it influences my worship to Allah...”</p>
Facility Aesthetics	<p>“..My decision goes into the restaurant image, name, signage, decorations, facilities and the environment before I decide to enter and eat ..”</p> <p>tthevisit the restaurant...”</p>
Cleanliness	<p>“..Every restaurant must monitor their hygienic and cleanliness in food handling, cooking, processing, toilets etc. I will not come to a restaurant which does not meet my expectations...”</p>
Customer Crowd	<p>“.. I will look at the overall atmosphere, the scents, the smell, physical surroundings and whether the restaurant has many Muslim patrons...”</p>

hope expressed by members in the panel is the evidence of the spiritual characteristics as illustrated in Table 4.

At the end of the sessions, the panels voiced their concerns of a few Indian

Muslim restaurateurs in Malaysia who still practiced the Indian rituals and this lead to a question or somewhat ambiguous as to whether the food dished up is truly *Halal* or not.

Table 4  
*Environmental stimuli based on focus group perception*

Group A & B Responses	Elements Of Spiritual Characteristics
<p>“... I rather not to buy at all if no choice available even though I feel very hungry. In Islam mentioned that non acceptance of 40 days supplication if we consume prohibited food and beverages... “</p> <p>“... As a Muslim I feel secure and I enjoyed the food with great pleasure when I confident the restaurant is <i>halal certified restaurant</i>...”</p> <p>“.. I will choose a restaurant which belongs to Muslim because I feel secure..”</p> <p>sesecure my religion.”</p>	<p>Perceived Feeling “Secure” and “Assurance”</p>
<p>“.. I was brought up as a Muslim and I feel guilty to Allah, if I consume something which is prohibited, because I have a knowledge about it...”</p> <p>...”When I ate <i>Halal</i> food, I feel that I am close to Allah because I fulfil what is commanded, and I fear the consequences of consuming unlawful foods..”</p> <p>“.. I feel contented and proud as I made the right choice, if the food and services is good, absolutely I will return back...”</p> <p>“... I feel blessed, in my heart and mind when I eat at a restaurant which regulates the Islamic value elements...”</p>	<p>Perceived Feeling “Fear” or “Closed To God (Allah)”</p> <p>Perceived Feeling “Contented” and “Blessed”</p>
<p>...”I came across an experience of eating at the Indian Muslim Restaurant whereby they hang the Quranic frames on the wall . Finally, I noticed, the owner of the premise is Non- Muslim and they have a mixed workforce. I feel doubtful of this restaurant, whether it is safe to declare the <i>Halalness</i>”.....</p> <p>...”I am aware that the Indian Muslim restaurant must temporarily close during the Friday prayer,Eid celebration, and fully hired Muslim staffs and practice Islamic greetings .Besides, I concern on their contribution to Muslim charity association ...”</p>	<p>Perceived Conscious” and “Trust”</p>

**THEORITICAL IMPLICATIONS**

The focus group findings provide an insight into the determinants of Islamic Retail Experiential Value in the context of an Indian Muslim restaurant. In this study, the outcome revealed that restaurant environmental stimuli generate a variety of emotional states that signify the relativity of the S-O-R paradigm (Mehrabian & Russell,

1974).The focus group indicated that Islamic environmental stimuli ranging from *Halal* logo, facility aesthetics, cleanliness, ownership and customer crowd have a strong effect on the Muslim customer experience in patronizing an Indian Muslim restaurant.

The findings are consistent with prior studies done by Veira (2013) and those of

Cheung, Eckmen and Yang (2011) which found the direct effects of environmental stimuli positively related to emotions in retail environment.

Following the discussion, the result represented that the Muslim customer are highly spiritual conscientious in their decision to patronize and consume food which strictly follow the Islamic dietary law. Thus, this study has unscrambled the determinants of Islamic Retail Experiential Value by suggesting that emotional descriptors such as feelings of “security”, “conscious”, “trust”, “assurance” and “fear” are components of the Islamic value embedded in Muslim spirituality. Hence, spirituality is recognized as Muslim customer intelligence, knowledge and awareness which can be accounted as a salient predictor to Muslim customer experience. Drawing to their importance, the researchers postulate the significance of having spirituality determinant in constructing the Islamic Retail Experiential Value (IREV) theory framework. This new determinant will be integrated into the established Mathwick, Malhotra, and Rigdon (2001) experiential value scale as illustrated earlier.

### **MANAGERIAL IMPLICATIONS**

The findings of this study can be beneficial to Indian Muslim restaurant operators on the role of emotions in influencing Muslim customers to patronize their restaurant. Results suggests the Indian Muslim restaurant should take an effort to focus on environmental features such as creating an

Islamic tangible and intangible cues which could potentially could create experience based value. The fact is Muslims look for a restaurant that is *Halal* compliant and conforms to Islamic Values. Therefore, this study provides critical inputs for Indian Muslim restaurant owners in understanding how the environmental stimuli will impact both the emotions of the Muslim customer as well as their behavioural intention to patronize in the future.

### **CONCLUSION**

The concept of Islamic Retail Experiential Value (IREV) is based upon the components and dimensions related to Islam. The value expressed is a deliberation from emotions comprised both affective and cognitive states that centre on the God (Allah) existence as the confession of faith. Apparently, this finding is corroborating with that of Tamaa and Voon (2014) on the role of spiritual components which have a strong influence on customer’s emotional experience. As a conclusion, the findings successfully unscrambled the determinants of IREV and thus provide a foundation for researchers to conduct the next phase of the quantitative method.

To this end, this study serves as a modification to Matwick, Malholtra and Ridgon (2001) typology in measuring customer experiential value as this study is driven by the need to establish a model on Islamic Retail Experiential Value (IREV) involving Muslim customers and restaurant setting.

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## **Reasons for the Unsuccessful Extension of Time (EoT) Claim in the Malaysian Construction Industry**

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### **ABSTRACT**

Claim in relation to time is among of the contractual claims that are unavoidable in any construction project. This paper aims to identify the reasons for the unsuccessful extension of time (EoT) claims in the Malaysian construction industry. A survey research approach, using questionnaire was used and findings revealed that it is common for the EoT claim to be rejected during its first submission and requires further submission with some amendment and modification to facilitate the assessment process by the contract administrator. Insufficiency of the claim document, poor presentation of claims and lack of evidences to support the claim has been found to be among of the reasons for their rejection. The findings suggest that competencies in handling claims, effective record keeping, and strict adherence to the contract are among of the recipes towards achieving a successful EoT claim.

*Keywords:* Claims, construction, contract, delays, extension of time, failure, projects, rejection

### **INTRODUCTION**

Delays in construction projects often results in adversarial relationship between

stakeholders, distrust, litigation, arbitration, cash-flow problem and a general feeling of apprehension towards each other (Ahmed, Azhar, Kappagantula, & Gollapudi, 2003). As the delay would lead to the inability to meet on-time project completion, it may also results in extra cost, client dissatisfaction and other related problems (Hwang, Zhao, & Ng, 2013). The most common results of project delays are the need for an application of extension of time (EoT). Since delays

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are regarded as norm in the construction industry, the EoT claim emanating from such delays found to be among of the major source of claim in the construction industry. In fact, Yates and Epstein (2006) viewed that the claim originating from delays in a construction project is integral to modern construction. On the other hand, Harris and Scott (2001) asserted that, contract claim will continue to occur despite a number of recent innovations in in the way which contracts are procured and administered. This appears to be consistent with Kululanga, Kuotcha, McCaffer, and Edum-Fotwe (2001) who postulated that the construction projects are becoming increasingly susceptible to a variety of factors that give rise to time extension and cost recovery, which then resulted to the number of contractual difficulties continue to rise. An effective claim management process is therefore essential to ensure that any contractual claims arising are dealt with fairly.

### **EXTENSION OF TIME CLAIM**

Claims are very simple to generate, but are not always easy to substantiate (Chappell, 2011). As most construction claims are difficult and complex, rejection of claim is regarded as common in the construction industry. For Iyer, Chaphalkar and Joshi (2008) a claim could neither be completely neither accepted nor rejected; there is partial acceptance of the claim. 86% of respondents of a survey at a Zambian construction industry indicated it is common for the client to either reduce or completely reject

the contractor's claim (Sibanyama, Muya, & Kaliba, 2012). According to Yogeswaran, Kumaraswamy and Miller (1997) "a dispute can be said to exist when a claim or assertion is made by one party is rejected by the other party and that rejection is not accepted". Recent study by Ramachandra, Rotimi & Gunaratne (2014) in the Sri Lankan construction industry discovered that on average 60% of contractors submitted EoT claims with only 40% of success rate.

Provision for dealing with time extension is normally established in most standard form of contracts e.g. under Clause 23 in the Pertubuhan Arkitek Malaysia (PAM) 2006 contract, Clause 43 in the Public Works Department (PWD) 203A form (revision 2010) and Clause 31 in the Construction Industry Development Board (CIDB) form of contract. Unfortunately, most contract forms contain only the general procedures and entitlement for an extension of time with some under-defined areas that are open to different interpretation that would sometimes lead to disputes and disagreement amongst the parties involves (Palaneswaran & Kumaraswamy, 2008). This is in line with Farrow (2007) that EoT clauses in construction contracts are not prescriptive and drafted in a general way which then failed to assist the contracting parties in handling time-related claim and issues. The extension of time clause is meant to protect both parties i.e. the employer and the contractor. For the employer, it would prevent time from being rendered "at large", while for the contractor they will have more time to complete the project as a successful

EoT claim will extend the duration of completion and which would also absolve them from paying liquidated damages (Birkby et al., 2008; Chong & Leong, 2012).

Any construction claim should be well-demonstrated, substantiated and justified to achieve the desired result (Hewitt, 2011). Early studies identified the following as the reasons for the rejection of EoT claims:

- a) Failure to establish cause-effect relationship
- b) Inadequate supporting documents
- c) Late submission
- d) Non-entitlement in principle/non-valid ground/s
- e) Non-compliance with contractual requirements
- f) Insufficient breakdown of claim amount/global claim

### **Failure to Establish Cause-Effect Relationship**

The most important and indeed difficult task in preparing EoT claims relates to establishing the link between cause and effect, as the effect of the event is usually difficult to link directly to the cause, which often needs to be both demonstrated and substantiated (Haidar & Barnes, 2011; Hewitt, 2011). The link between cause and effect should show the extent to which the parties have been affected. The claiming party needs to establish that work have been delayed; that the delay has been caused by one of the relevant events listed in the contract; and, that the delaying event will

lead to the completion of the works being delayed (Carnell, 2005). In addition, the demonstration of the cause and effect should include details of the affected activities in reference to their planned sequence, duration and methodology, the status of the works in relation to the planned schedule at the time of the event, and a description of the changes to that plan as a consequence of the event (Dodangoda, 2010).

### **Inadequate Supporting Documents**

Many EoT claims by contractors fail due to poor documentation and inadequate supporting documents (Malconlaw, 2011). In the event of a poor claim submission, the contract administrator has three options: 1) he can reject the claim on the grounds that the claimant failed to prove his case; 2) he can respond with a request for the claimant to provide additional information in order to permit a proper assessment to be carried out on the submitted claim; or 3) he can produce a determination that is based not only upon the claim submitted but also on the assessor's own knowledge and the records available (Hewitt, 2011).

### **Late Submission**

The prompt submission of an EoT claim is recognised as a good practice for speedy and harmonious settlement of a claim (Birkby, Ponte & Alderson, 2008; Kumaraswamy & Yogeswaran, 2003; Pickavance, 2005; SCL, 2002). As it is impractical for the contract administrator to assess the contractor's claim that has surpassed the time limit

(Ramachandra et al., 2014), failure by the contractor to submit it within the time frame may entitle the employer to reject the claim, which will then cause the contractor to lose his right to claim (Liulihong, 2010).

### **Non-Entitlement in Principle/Non-Valid Ground/s**

It is common for EoT claims to be rejected due to non-entitlement/non-valid grounds. This actually refers to a situation where: such delay events are not within those listed in the contract clause empowering the construction to be extended; when the contractor is in culpable delay, i.e. the delay is due to the contractor's own doing; and when the causes of delay are not due to the client and his representatives but due to neutral events, where such risks are expressly to be borne by the contractor, e.g. heavy rain (except for exceptionally inclement weather) (Zaini, 2011). Typically, most standard forms of contracts contain a provision dealing with time-related issues, particularly on delays and extension of time in a construction project. For the contractor to claim for an extension of time, it is important to precisely identify on what contractual basis the claim is being made.

### **Non-compliance with Contractual Requirements**

A thorough review and understanding of the contract is crucial, not only in assisting the project management and contract administration, but also in ensuring the success of a claim request. Generally, most

construction contracts contain clauses stipulating the contractor's obligation on the need for notice of delay and detailed particulars of a claim (Tan, 2010). Such notice requirements are imposed to provide the owner with an opportunity to assess the circumstances to determine whether there is an alternative to rectify the situation and to mitigate its costs (Ansley et al., 2001; Baduge & Jayasena, 2012). For instance, Clause 23.1(a) of PAM 2006 requires the contractor to "*give written notice to the Architect of his intention to claim for such an extension of time, together with an initial estimate of the extension of time he may require, supported by all the particulars of the cause of delay. Such notice must be given within twenty-eight (28) days from the date of AI, CAI or the commencement of the Relevant Event, whichever is earlier. The giving of such written notice shall be a condition precedent to an entitlement to extension of time*". Failure by the contractors to comply with the contractual provision will result in the forfeiture of their right, including their entitlement for an extension of time (Dodangoda, 2010; Tan, 2010).

### **Insufficient Breakdown of Claim Amount/Global Claims**

The inability of claimants to break down the claim amount can contribute to rejection of claim submissions. Such a situation is often referred to as a 'global' or 'rolled up' claim; an event where the contractor combines all the different causes of delay and shows a single effect in which a large number of delay days are claimed without an analysis

of the impact that each delay event had on the completion date (Brammah, 2008; Zaini, 2011).

## METHODS

A quantitative approach using a questionnaire survey method was employed to collect data with the intent of identifying reasons for unsuccessful EoT claims. Two target populations comprising professional architects and Grade G7 contractors were identified as the respondents for the survey.

Respondents were randomly selected from a list obtained from the Construction Industry Development Board (CIDB) Contractor Directory and the Board of Architect Malaysia (LAM) database. The survey was conducted simultaneously on 1500 respondents consisting 500

professional architects and 1000 Grade G7 contractors in the country. Of this number 253 responses were received, of which eleven were incomplete and five were returned because the company was no longer in operation or had changed their addresses. According to Sekaran & Bougie's (2010) rule of thumb; if twenty five per cent (25%) of a questionnaire is left unanswered, it should be excluded from the analysis. Unfortunately, all eleven of incomplete questionnaires were found to exceed the rules; therefore, it has been discarded for further analysis. This left only 237 questionnaires considered satisfactorily completed, giving a response rate of sixteen per cent (16%). Table 1 illustrated the response rate for this research.

Table 1  
*Response rate*

Types of Respondents	Number of Questionnaires		Response rate (%)
	Distributed	Returned (satisfactorily completed)	
Professional Architects	500	108	21.6
Grade G7 Contractors	1000	129	12.9
Total	1500	237	15.8

## RESULTS AND DISCUSSION

A questionnaire was designed based on a comprehensive review of previous related researches, specifically in the area of construction delays, construction claim management, and construction disputes. To support the findings of the literature review, informal discussions were held with industry practitioners to identify

current construction practices in the Malaysian construction industry, and a set of questionnaires containing four sections were prepared. However, this paper only presents the results for Section D of the questionnaire; that is to identify the reasons for unsuccessful EoT claims.

The first question requires respondents to rate the frequency of the claim status

for their EoT claim as shown in Table 2. The collective assessment of the overall responses from the professional

architects and the contractors reveals that, resubmission of EoT claim consider norm in the Malaysian construction industry.

Table 2  
Reasons for the unsuccessful Extension of Time (EoT) claim

Success Rate	Architect		Contractor		Overall	
	Mean	Rank	Mean	Rank	Mean	Rank
First application rejected; resubmit the application and successful	3.59	1	3.11	1	3.33	1
100% successful at the first submission	2.01	3	2.40	2	2.22	2
Rejected	2.30	2	2.13	3	2.21	3

The second question required respondents to rate how frequent each of the reason being the reasons of failure of EoT claim. A total of six (6) reasons have been identified to be the most common for rejections. Based on the collective assessment of the overall responses ‘failure by the contractor to establish the cause-effect relationship’ ranks first, followed by ‘inadequate supporting documents’, ‘contractual provisions not properly identified to support claim’, ‘late submission’ and ‘failure by the contractor

to comply with the contractual requirement’ with the mean score of 3.79, 3.71, 3.36, 3.24 and 3.22 in a descending order. ‘Insufficient breakdown of claim amount’ comes at the bottom with the overall mean score of 3.15.

The results shown in Table 3 demonstrates that both groups have reached almost a perfect agreement in their ranking for reasons of failure of EoT claim. The ranking of the five most frequent reasons of failure was expected as those five elements were amongst of the essential elements in

Table 3  
Reasons for the unsuccessful Extension of Time (EoT) claim

Reasons	Architect		Contractor		Overall	
	Mean	Rank	Mean	Rank	Mean	Rank
1. Failure by the contractor to establish the cause-effect relationship	3.99	1	3.62	1	3.79	1
2. Inadequate supporting documents	3.92	2	3.53	2	3.71	2
3. Contractual provisions not properly identified to support claim	3.32	4	3.40	3	3.36	3
4. Late Submission	3.33	3	3.16	5	3.24	4
5. Failure by the contractor to comply with the contractual requirement	3.27	5	3.19	4	3.22	5
6. Insufficient breakdown of claim amount (Global claim)	3.21	6	3.09	6	3.15	6

presenting claims, in which failure by the claimant to ensure their claim meet those criteria may lead to the rejection of claim by the contract administrator.

‘Failure by the contractor to establish the cause-effect relationship’ received the highest rank from both group. This seems to indicate that, this issue requires attention. Basically, for a claim to be successful the contractor must be able to produce facts and evidences that damages were incurred as a result of other parties’ actions or inactions (Carnell, 2005; Hewitt, 2011).

Ranking second came ‘inadequate supporting documents’. The construction industry has long suffered from the issue of maintaining adequate records and documentation of project activities. Thus, leading to poorly substantiated claims that could open the door for unsatisfactory claim resolution. Yates and Epstein (2006) advocates that, a proper construction delay claim management requires extensive documentation and the ideal time to start documenting, or maintaining detailed records regarding construction delays is not when it is first realized but much earlier. Thus, leading to poorly substantiated claims that could open the door for unsatisfactory claim resolution.

The third reason was ‘contractual provisions not properly identified to support claim’. Among the provision which demands great attention pertains to time extension. Reference has to be made to the contract document or other available project documents, failure to do so can lead to the rejection of claims.

‘Late Submission of claim’ ranked fourth as the reason why EoT claims are rejected. Previous study conducted by Kumaraswamy and Yogeswaran (2003) and Yusuwan and Adnan (2013) in Hong Kong and Malaysia discovered that, ‘late submission of claim’ was ranked second as the reason contributed to the late assessment of EoT claim by the Architect.

As the contract document is the first point of reference when there is a dispute contracting parties must therefore adhere strictly to the terms and conditions contained therein. Thus ‘*Failure by the contractor to comply with the contractual requirement*’ was ranked fifth as the reasons of failure of EoT claims.

## CONCLUSION

The survey results indicate that, it is common for EoT claims to be rejected, requiring re-submission because of insufficient claim documents and poor presentation. With a total response rate of 16%, this study shows failure by the contractor to establish the cause-effect relationship, inadequate supporting documents, contractual provisions not properly identified to support claim, late submission of claim and failure by the contractor to comply with the contractual requirement as five (5) most frequent reasons for the unsuccessful EoT claim. The findings suggest that competencies in handling claims, effective record keeping, and strict adherence to the contract are among of the secret recipes towards realising a successful EoT claim. A proper record keeping and management system is essential. Although

there is no guarantee to get everything, at least proper factual evidence and adequate supporting documents will facilitate the claim management process, thus helping to diminish conflict and disputes resulting from unsatisfactory claim resolution. Competency will help the professional in determining what constitute to a good claim, what need to be complied and further put it all together into a perfect and quality claim. Other than having so called 'claim conscious' attitude, a pro-active and early non-adversarial discussion would be the best way to achieve amicable settlement for a claim, and clearly this would not only requires one sided commitment but demands everyone's attention, commitment and cooperation in realizing it.

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## Urban Climatic Analysis Mapping of Kuala Lumpur City

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### ABSTRACT

As Malaysia envisions its cities to be environmentally-friendly the concept of Urban Climatic Mapping should be introduced as a guide in assisting urban planners. This paper aims to generate the Urban Climatic Analysis Map (UC-AnMap) of Kuala Lumpur City. It uses the Geographical Information System as the analysis platform together with available data sets of Kuala Lumpur to generate the urban climatic map. To generate UC-AnMap two main analyses involved are Thermal Load and Dynamic Potential were used. Using the combination of the two key analyses, the UC-AnMap of Kuala Lumpur is produced and climatically sensitive areas of the city produced.

*Keywords:* Dynamic Potential, Thermal Load, Urban Climatic Analysis Map, urban planning, urbanization

### INTRODUCTION

Rapid urbanization has taken place all over the world especially after World War 2, without a proper planning, urbanization can lead to environment degradation. The urban climate condition in Malaysia's cities

is degraded due to rapid and uncontrollable urbanization. Thus, many cities in Malaysia experience the negative effects of urban heat islands, and the country is projected to experience urbanization process of about 0.84% by 2020 (Yuen & Kong, 2009).

The effects of UHI phenomenon in Malaysia is not new as several cities in Malaysia have reported and documented heat islands (Elsayed, 2012; Karsono & Wahid, 2010; Kubota & Ossen, 2009). The UHI phenomenon increases the risk of climatic hazards such as heat stress and exposure to air pollutants (Arifwidodo & Tanaka, 2015).

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To inject the urban climatic information in urban planning, the gap between meteorology field and urban planning must be filled. The UC-Map is a climatic information and evaluation tool that helps planners to understand the urban climate conditions and formulate them in their urban design (Ren et al., 2012).

The UC-Map has two main components: the Urban Climatic Analysis Map (UC-AnMap) and the Urban Climatic Recommendation Map (UC-RecMap) (Ren et al., 2010). UC-AnMap presents the urban climatic characteristics of different regions which used the analysis and evaluation of their urban climatic factors and their effects on thermal condition and dynamic potential as the basis. The wind information layer is also included in order to ensure the information is adequate (Acero et al., 2015; Baumuller et al., 2009; Burghard et al., 2010; Eum, Scherer, Fehrenbach, Koppel, & Woo, 2013; Houet & Pigeon, 2011; Mora, 2010; Morris, 2016; Ng, Chao, Katzschner, & Yau, 2009; Ren, Lau, Yiu, & Ng, 2013; Ren et al., 2012; Tanaka, Ogasawara, Koshi, & Yoshida, 2009). The UC-ReMap portrays the spatial evaluation of current climatic conditions and characteristics and identifies areas which are climatically sensitive, requiring planning attention (Acero et al., 2015; Baumuller et al., 2009; Burghard et al., 2010; Eum et al., 2013; Houet & Pigeon, 2011; Mora, 2010; Morris, 2016; Ng et al., 2009; Ren et al., 2013; Ren et al., 2012; Tanaka et al., 2009).

This study aims to generate one of the main components of UC-Map called UC-

AnMap to examine the climate condition in Kuala Lumpur city. By utilizing the readily available data sets, this study employs the same model used by a study in Hong Kong (Ng et al., 2009; Ren, Ng, & Katzschner, 2007) to generate the UC-AnMap of Kuala Lumpur. Geographical Information System (GIS) is used as the analysis platform to prepare and analyse the information layers as well as to produce the maps.

## METHODS

This study focuses on Kuala Lumpur city. It takes its different characteristics to identify how the urban climate varies. Kuala Lumpur city has regions which are dominated by high-rise buildings and skyscrapers, compact business areas such as Bukit Bintang, residential areas, highly vegetated areas such as Bukit Tunku and Mont Kiara and other areas suitable for this study.

This study used the readily-available datasets consisting two vector data layers i.e. building.shp and landuse.shp, and two raster data layer i.e. Digital Elevation Model (DEM) and satellite image. Building.shp stores building footprints and building height information whereas landuse.shp layer stores land use information i.e. land use classes which are very important for this study. DEM layer used in this study is derived from Light Detection and Ranging (LiDAR) data set which has been captured in 2014. The satellite image, Landsat 8 OLI/TIRS, used in this study is an open source data provided by U.S Geological Survey website.

In this study, a model used to study the situation in Hong Kong (Ng et al., 2009) was utilised to produce the UC-AnMap of Kuala

Lumpur. The methodology adopted of this study can be seen in Figure 1.

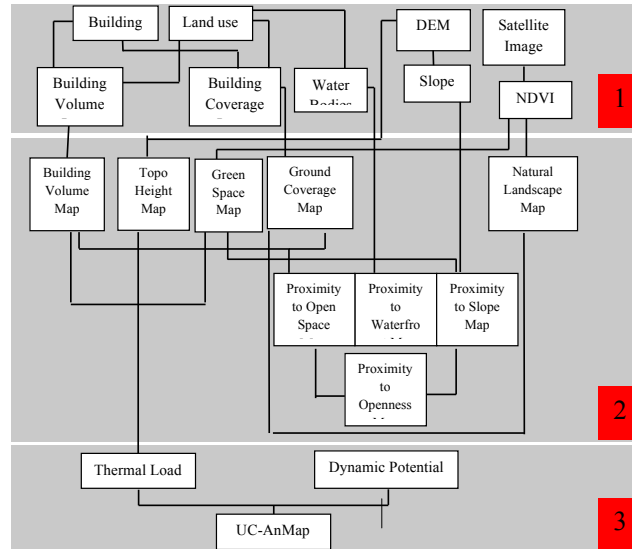


Figure 1. Methodology adopted for this study

### Preparation of Data Sets

In this study, readily-available data sets of Kuala Lumpur are used to produce the UC-AnMap. The data consists of two vector data layers (i.e., building and land use) and two raster data layers (i.e. Digital Elevation Model and satellite image). Building layer which contains building footprints and building heights is used to calculate the building volume and building coverage. Land use is needed to separate built-up areas from vegetated areas and used to calculate the building volume (for no building and pavement areas), building coverage, proximity to water bodies and open space. Elevation variation and slope layer are obtained from DEM layer. A satellite image

(Landsat 8 OLI/TIRS) dated 24th March 2014 is used to derive the Normalized Difference Vegetation Index (NDVI) layer. The selected date also provides a clear sky view image which is very suitable to extract the NDVI information easily. The data sets and information prepared are needed to generate six urban parameter layers which store the impact value of each urban parameter that influence the urban climate condition.

### Generation of Urban Parameter Layers

The urban climate of the city can be characterized with a balanced consideration of “negative” Thermal Load effects due to building bulks and building layouts and

“positive” Dynamic Potential and mitigate effects (Ng, Katschner, Cheng, & Lau, 2008). The study examines six urban parameters to analyse their contribution to Thermal Load and Dynamic Potential and therefore to the urban climate. Every layer is classified into specific classes (with classification values) which indicate the impact value of the urban parameters on Thermal Load and Dynamic Potential. The study maps the six urban parameters spatially (into spatial data layers) using the GIS technique. The urban parameter layers are combined and classified either positively or negatively vis a vis their effect on urban climate. All of the six layers are prepared in raster layer with a resolution of 30 m x 30 m.

Using the building footprints and information on height the buildings' volumes are computed, which is combined with land use information to identify the areas without buildings and also pavements such as roads. The volume information is then converted into raster data layer with percentage and classified into six classes based on a field observatory study (Zhao, Fu, Liu, & Fu, 2011) in a tropical country. The classes range from 0 to 6. By utilizing the DEM layer, the topography of Kuala Lumpur is classified (Topographical Height). Using the classification based on a study of Hong Kong (CUHK, 2012), this study classified the layer into four classes ranging from -3 to 0. Using NDVI layer prepared, this study separates vegetated areas from non-vegetated areas in Kuala Lumpur using the threshold value of 0.1. Using the building and land use layers, this study identifies

and separates the built-up areas from the non-built-up areas. The built-up areas hold a value of 1 and 0 for the non-built-up areas. The layer is then converted into raster data layer with 1m resolution. The layer is then aggregated into 30 m resolution with sum option. The percentage of built-up areas within a pixel (30m x 30m) is calculated and classified based on a study (Middel, Hab, Brazel, Martin, & Guhathakurta, 2014). In this study, the proximity from water bodies, the proximity from open space and the proximity from slope areas are used to assess the Dynamic Potential of Kuala Lumpur. These three aspects have different effects on the urban climate. In this study, these three aspects are combined and the maximum value is selected to present the openness of the study areas.

#### **Generation of Thermal Load layer, Dynamic Potential layer and UC-AnMap**

Thermal Load and Dynamic Potential play important roles in influencing the climate in an urban area. The balance between Thermal Load and Dynamic Potential is used to derive the UC\_AnMap which represents the climatic condition of an area in eight different classes. Through six urban parameter layers generated from the previous stage, the Thermal Load and Dynamic Potential of Kuala Lumpur are derived, and then, the two important layers are combined together to produce the UC-AnMap of Kuala Lumpur. The Thermal Load layer is generated using three urban parameter layers produced earlier; Building

Volume layer, Topographical Height layer and Green Space layer. By adding the pixel values (classification values) of the three layers involved, Thermal Load layer of Kuala Lumpur is produced. The resulted pixel values represent the impact of Thermal Load (warming effects) on the urban climate of Kuala Lumpur. Using three urban parameter layers generated from the previous stage - Building Coverage layer, Natural Landscape layer and Proximity to Openness layer - the Dynamic Potential layer is produced. Similar to Thermal Load layer, Dynamic Potential layer is portrayed by the sum of pixel values (classification values) stored in the layers involved. The resulted pixel values represent the impact values of Dynamic Potential (cooling effects) on the urban climate of Kuala Lumpur. UC-AnMap is a map that portrays the climatic information (condition) of an urban area using the collation of important climatic information through assessments made on Thermal Load and Dynamic Potential. In this study, the UC-AnMap of Kuala Lumpur is generated by simply adding the impact values of Thermal Load and Dynamic Potential. The values obtained represent the impacts of six urban parameters on the urban climate condition of Kuala Lumpur. The values are then reclassified into eight classification system (CUHK, 2012).

## RESULTS AND DISCUSSION

### Urban Parameter Layers

This study examined six urban parameters in order to analyse the two key issues: Thermal Load and Dynamic Potential. The study

maps the urban parameters into six different layers; building volume map, topographical height map, green space map, building coverage map, natural landscape map and openness map. In order to analyse the impact of the urban parameters, classification values were assigned to indicate their impact on the urban climate condition of Kuala Lumpur. Positive values of the layers involved in the generation of Thermal Load indicate negative impacts on the urban climate condition. On the other hand, the negative values of the layers involved in the generation of Dynamic Potential indicate positive impacts on the urban climate condition.

### Building Volume, Topographical Height and Green Space

Figure 2 shows the Building Volume, Topographical Height and Green Space maps which involved in the generation of Thermal Load. In Building Volume map, most of the pixels are classified as Paved Area only with value of +1. Most pixels stored 0% to 4% building volumes with value of +2. In other means, the most of the pixels in this layer contribute to the increment of Thermal Load value by +1 to +2. Differ from Building Volume map, Topographical Height map indicates that most of the pixels contribute to the reduction of Thermal Load value by -1 to -3. It can be seen areas which have the capability to reduce the Thermal Load values are mostly situated at Kuala Lumpur outskirts. This indicates that, the centre of Kuala Lumpur is surrounded by high terrain with development concentrated

in the lower altitude. Green Space map clearly shows that Kuala Lumpur is mostly covered by vegetated areas. Therefore, most

of the pixels in this layer contribute to the reduction of Thermal Load values with a value of -1.

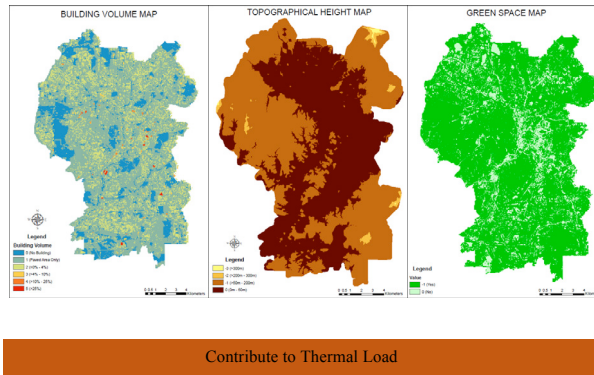


Figure 2. Building Volume map, Topographical Height map and Green Space map

### Ground Coverage, Natural Landscape and Proximity to Openness contribution to Dynamic Potential

Figure 3 shows the maps of urban parameters to generate the Dynamic Potential. Ground Coverage map indicates that most pixels of the areas in Kuala Lumpur are not covered with built-up areas which increase the Dynamic Potential values by -2. Natural Landscape map portrays that most of the areas have high Dynamic Potential. Most

pixels of the areas in Natural Landscape map maintain the value of Dynamic Potential by 0. The map also shows that, even though Kuala Lumpur is covered by vegetated areas, most of the vegetated areas are not dense which increase the Dynamic Potential. Similar situation as in Ground Coverage map is also found in Proximity to Openness map. The Openness map shows that most of the areas contribute to the increase of Dynamic Potential with a value of -1.

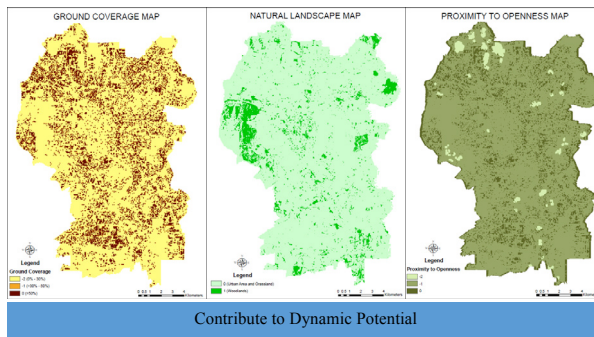


Figure 3. Ground Coverage map, Natural Landscape map and Proximity to Openness map



### Thermal Load Layer and Dynamic Potential Layer

As mentioned earlier, Thermal Load has a negative influence on the urban climate condition. Figure 4 shows the Thermal Load map of Kuala Lumpur. The Thermal Load value ranged between -4 to 5; -4 indicates lowest value and 5 the highest value of Thermal Load. Based on the Thermal Load map, it can be concluded that the areas which have high Thermal Load are located

in the central part of Kuala Lumpur such as Bukit Bintang, areas are highly developed.

Figure 4 shows the Dynamic Potential layer of Kuala Lumpur. The Dynamic Potential value ranged between -4 to 1; -4 indicates highest value and 5 which indicates lowest value of Dynamic Potential. Even though the highest value of Dynamic Potential covers only a small area in Kuala Lumpur, it can clearly be seen that the city still allows air flow especially in northern regions of Kuala Lumpur such as Jinjang.

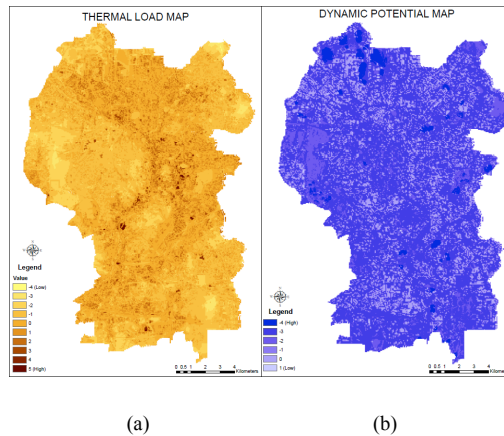


Figure 4. (a) The Thermal Load layer; and (b) Dynamic Potential layer of Kuala Lumpur (right)

### Urban Climatic Analysis Map of Kuala Lumpur

The generated UC-AnMap is shown in Figure 5. Based on the result, the study proved that most of the areas in Kuala Lumpur can be classified as Neutral which covers approximately 48% of the study area. The areas which are classified as warming and cooling cover approximately 21% and 31% of the study area respectively. From the UC-AnMap produced, some regions

in Kuala Lumpur need proper mitigation measures. Based on the generated UC-AnMap, the climatically most sensitive areas (classified as Class 8) are within Kuala Lumpur City such as Bukit Bintang, Puduraya, Mid Valley City, KL Central and Jalan Raja Chulan. Therefore, urban planners and policy makers must take proper measures to mitigate critical climatically sensitive areas within the study area.

The map also indicated that the areas classified as warming areas are located in

the central part of Kuala Lumpur which is also highly built-up. On the other hand, the cooling areas are mostly located within the outskirts of Kuala Lumpur city centre. Based on the results (UC-AnMap), it is clearly evident that Kuala Lumpur suffers urban heat island. The neutral areas surround warming areas forming coat-like regions and a boundary between warming areas and cooling areas.

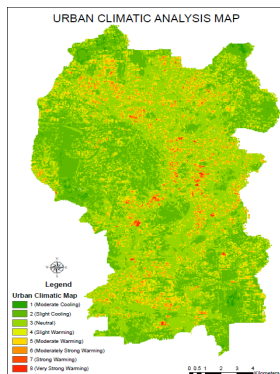


Figure 5. UC-AnMap of Kuala Lumpur, Malaysia

## CONCLUSION AND RECOMMENDATION

This study aims to generate UC-AnMap of Kuala Lumpur based on the study that was done in Hong Kong. Eight-class UC-AnMap was produced to highlight the climatically sensitive areas in Kuala Lumpur. Based on the result, this study proved that 21% of the study areas are categorized as warming classes, 31% of the areas categorized as cooling areas and 48% of the areas are neutral. It suggests some regions require mitigation to improve the climate condition

and some regions should be preserved and maintained. Through the generated UC-AnMap, the urban climatic condition of Kuala Lumpur is portrayed and can be used as a guide for urban planning especially for a better future development and sustainability.

This study employed the model which is designed to suit Hong Kong's urban scenario. Even though both cities experience similar climate, there are several differences in terms of urban scenarios between these two cities. Therefore, a model which suits the City of Kuala Lumpur should be developed. A UC-AnMap should be able to translate the complex meteorological and climatological data into a simpler form of "language" to be easily understood by urban planners and policy makers.

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## The Evolution of Homestay Tourism in Malaysia

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### ABSTRACT

This research reveals the evolution of homestay concept in Malaysia from ‘bed and breakfast’ for long-stay tourists through to their becoming an official national tourism product in 1995.

*Keywords:* Community participation, homestay, host family, Malay Kampung, rural tourism

### INTRODUCTION

In the 1980s, Malaysia began to encourage rural Malays to participate in the tourism sector arising from the popularity of Malay Kampung (Malay Village in Malay Language) as homestay for long-stay tourists and Japanese students.

When the Master Plan for Traditional and Planned Settlements in Local Government Areas of Peninsular Malaysia was carried out in 2010 in 17 selected villages in Peninsular Malaysia, developing homestays was seen as a means to deal with issues such as decreasing populations, especially among youth; lack of infrastructure and public facilities, unemployment, lack of interaction among the community, damage to the environment and landscape, and decreasing awareness towards culture and tradition.

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### METHODS

This research aims to clarify the characteristics of Malaysian homestays. The transformation and development of

homestays into an official tourism product is revealed in a chronological order.

## RESULTS AND DISCUSSION

### The Definition of Homestay

Homestay is defined by the World Tourism Organization as ‘people who travel to and stay in places outside their usual environment for more than twenty four hours and not more than one consecutive year for leisure, business, and other purposes not related to the exercise of an activity remunerated from within the place visited’ (Kadir et al., 2010). Meanwhile, Richardson (2003) defined a homestay as ‘where families offer their own home to international students for part of, or the duration of their stay in the country’. The homestay host is expected to take care of the needs of international students’ and provide a means of cultural exchange.

In Malaysia, the Ministry of Tourism (MOTOUR) defined homestay as ‘where tourists stay with the host family and experience the everyday way of life of the family in both a direct and indirect manner’ (Ministry of Tourism, 1995).

Malaysian homestays differ from *minshuku* in Japan, farmstays in European countries, and homestay programs in English education (Ramele, 2015). Here tourists stay with families in the Malay Kampung and participate in the rural community activities.

The relationship of Malaysian homestays with other types of tourism: community-based tourism, rural tourism, cultural tourism, sustainable tourism, and special interest tourism have contributed to

the characteristics (Jamal, 2012) and have created a significance value for this research.

### The Evolution of Homestays

**The Bed and Breakfast.** The homestay accommodation in rural areas since the 1970s is based on ‘bed and breakfast’ concept (Hamzah, 1997).

In the late 1980s, Malaysian homestays were used by the Japanese youths while on students exchange programs (Hamzah, 2008), where they had the opportunity to participate in community activities.

As educational tours became part of school curriculums Malaysian homestays became attractive. Later, homestays in the Malay Kampung were used in agro-tourism programs, with FELDA becoming the most successful authority in the homestay industry in this sector. FELDA has produced 23 homestays in 23 villages in 5 states with 414 host families. By August 2013, 36,722 tourists had visited FELDA homestays and generated RM802,589.45 in income.

**The Malaysian Homestay Programs.** In 1988, the community of five villages in Temerloh, Pahang established the Desa Murni Homestay, which was supported by the Ministry of Tourism as a model for the new Malaysian Homestay Program (Kayat and Nor, 2006).

The Malaysian Homestay Program was officially launched in 1995, when the Ministry of Tourism saw the development of homestays (by the Ministry of Agriculture, regional governments and individuals) as a source of revenue.

This program was also aimed at increasing rural community participation in the tourism sector. This program was also used as one of the pilot projects for the Rural Tourism Master Plan of 2001 to provide guidance and technical assistance in policy

making related to rural tourism development (Ministry of Tourism, 2001).

The number of homestay programs established, number of tourists received, and income earned from the homestay programs have notably increased (see Table 1).

Table 1  
*Statistics of the Malaysian Homestay Program*

Year	No. of Homestay Programs	No. of Host Family	No. of Tourists Received	Income (RM)
2007	135	2,533	72,423	4,923,433
2008	146	3,034	91,533	6,393,676
2009	141	3,283	161,561	10,920,877
2010	139	3,005	196,472	12,407,227
2011	150	3,211	254,981	15,736,277
2012	159	3,424	325,258	18,545,656

Source: Ministry of Tourism, 2013

**The Malaysian Homestay Association.** In 2000, the chairman of the Desa Murni Homestay Committee established a new national level organization called the Malaysian Homestay Association to provide guidance to all homestay programs in the country.

Japanese youths continued to be the main tourists in the Malaysian Homestay Program established by the Ministry of Tourism in 1995. According to Hamzah (2008), Desa Murni Homestay in Pahang, Banghuris Homestay in Selangor, Relau Homestay in Kedah, and Pelegong Homestay in Negeri Sembilan are among successful homestay programs in this regard.

**The Malaysian Homestay Railway Tourism.** The Malaysian Homestay Program is linked to the Malaysian Railway

to form a new Malaysian Homestay Railway Tourism aimed at promoting an experience of culture, tradition and lifestyle of the Malay Kampung.

To date 21 homestay programs in Peninsular Malaysia have been selected to participate in this program.

**The Kampungstay Program**

In 2012, the Kampung stay program was introduced as a new type of accommodation where new traditional Malay house are built in the rural areas for long-stay tourists. The Kampung stay Program was established as an initiative under the Rural Tourism Master Plan to encourage rural community to participate in the tourism sector and as a continuation of the Malaysian Homestay Program (Ministry of Tourism, 2012b). The

Ministry of Tourism defines a Kampung stay Program as ‘an experience where tourist is provided an accommodation in the rural villages without the host family’; however, it still offers the opportunity to interact and participate in village lifestyle. Kampungstay Programme is aimed at providing tourists with the option on available accommodation in the country.

### CONCLUSION

In Malaysia, the Ministry of Tourism defined homestay as ‘where tourists stay with the

host family in both a direct and indirect manner’. Homestays in Malaysia tourists have the opportunity to stay with the rural people in their houses and participate in community activities.

Homestays in Malaysia began as bed and breakfast’ concept. In the late 1980s the homestay idea took on the concept of ‘homestay in a Malay Kampung house’ as popularized by Japanese students who visited Malaysia under the student exchange programs. Consequently many rural Malays too came to be attracted by the homestay

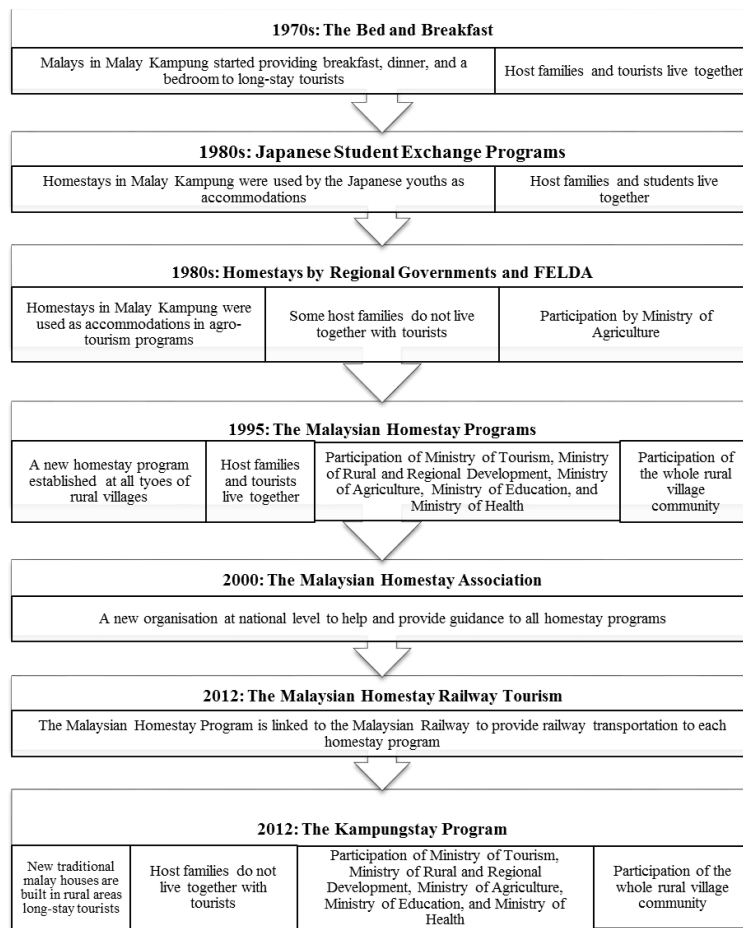


Figure 1. The Evolution of Homestay Programs in Malaysia



trend and started renting out their houses to tourists, turning them into resort style managed accommodation.

By 1995, homestays become a part of the Ministry of Tourism program, where the host family, the rural community (homestay committee members, cultural performers, guides etc.), the existing village organizations, and other government organizations, came to be involved. The program was then expanded into the Malaysian Homestay Railway Tourism and the Kampungstay Program. The evolution of homestay programs in Malaysia can be summarized in Figure 1.

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## **A Review of Public Participation in Housing Renovation Guidelines in Malaysia**

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### **ABSTRACT**

Illegal building renovation is an increasing urban problem in Malaysia. This situation has created a lot of problems and has caused unnecessary burden on the Local Authorities. This study seeks to explore the role of public participation in developing building renovation guidelines to solve the problem of illegal building renovations in Malaysia. Ampang Jaya Town Council (MPAJ), the eighth most developed town council in Malaysia (Jaafar 2004) will be set as an experimental test bed in developing a public participation model for a house renovation policy.

*Keywords:* Building guideline, housing policy, illegal renovation, public participation

### **INTRODUCTION**

Housing renovation work without approval is one of the most critical building construction problems faced in Malaysia. There have been many attempts on the

part of local authorities to encourage house owners, building draftsmen and architects to submit building renovation plans. This study will focus on a terrace housing scheme in Malaysia (NAPIC, 2016).

As defined by the Uniform Building By-laws of Malaysia 1984 (UBBL), terrace house means “any residential building designed as a single dwelling unit and forming part of a row or terrace of not less than three such residential buildings”. UBBL defines building line as “the line prescribed by the planning authority or local authority beyond which no part of a building may project, except as otherwise permitted by this By-laws.”

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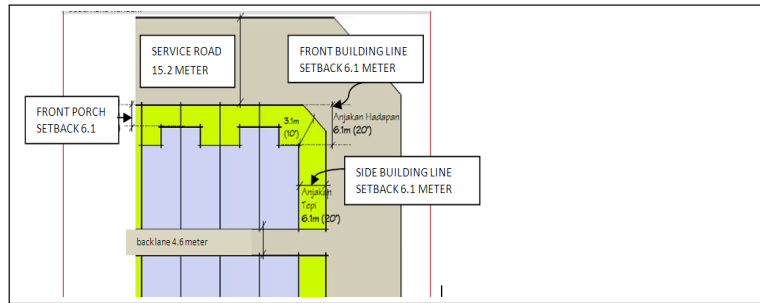


Figure 1. Typical layout of terrace houses  
 Source: Selangor State Planning Guideline Manual, October 2010

As stated in the Selangor planning guideline (Figure 1), the building line setback from the road reserve to the building wall is 6.1 meter and to the column of the building porch is 3.0 meter. Local authority's renovation guidelines allow for the extension work on the porch.

### WHY HOUSE OWNERS COMMIT ILLEGAL RENOVATIONS?

House renovations are so common in Malaysia that The Ministry of Housing and Local Government has regarded house renovations as a local culture. House renovations in Malaysia are carried out for many reasons. Some house owners feel that the terrace houses built by developers do not provide sufficient privacy, while others do so to keep up with building trends and materials (Ali & Zakaria, 2011).

There have been many initiatives taken by local government to create awareness among house owners on the need to apply for building renovation permits before carrying out renovation works (Pail, 2015). However, the number of illegal renovations remains high; for example, in Kajang

Municipality of Selangor as reported in Selangor Times, 3,864 houses out of 22,913 houses do not have renovation permits (Yap, 2012). This has caused concern regarding safety of the structures and the public. Interviews with some local council officers suggest that house owners have expressed their frustrations over the guidelines saying that they are too stringent and impractical. Knowing the possibility that approval maybe withheld when guidelines are not followed, some owners do not bother with seeking approval for renovation works.

### EXISTING HOUSING RENOVATION GUIDELINES IN MALAYSIA

#### Background of Housing Renovation Guidelines

In designing a housing scheme, housing developers have to abide by the act and regulations set in Malaysia, namely National Land Code 1965 (Act 56), Housing Development (Control and Licensing) Act 1966 (Act 118), Town and Country Planning Act 1974 (Act 172), Road, Drainage and Building Act 1974 (Act 133), Uniform

Building By-Laws 1984 (UBBL), and in case of Selangor, the “Manual Guideline and Selangor State Planning Standards” (October 2010), set by the state government to be used by all of its local authorities in their town planning system. Act 56 is the law that govern the registration and administration of lands in Peninsular Malaysia. Act 118 is set by The Ministry of Housing and Local Government of Malaysia to protect the interest of the house purchasers through the controls and licensing of housing development companies. Act 172 governs the broader aspect of planning control and regulation such as planning policy, development plans including structure plan and local plan, planning layout and development charges. Act 133 regulates the technical requirements in the construction of the road, drainage and building in Malaysia. Meanwhile, the UBBL is the By-Laws under the Act 133 that provides more detail information on the do’s and don’ts of building designs. It sets the standard for the minimum building setbacks, the minimum height of rooms, the minimum open space in each lot, fire prevention requirements and structural requirements among others. The Selangor State Planning Standards set the guideline for new development planning applications in Selangor and for building renovations, the application by the owners should follow the guidelines set by the local authorities of respective areas. However, a survey in several local authorities in Selangor found out that the renovation guidelines varies from one local authority to another due to

localized situations. These decisions are based on a sanction provided in the Act 171 and the consensus resolution of the Mayor (*Yang Dipertua*), the technical staffs and the local councillors of each local authorities in the state. As stated in clause 101(v) of the Act 171, a local authority has the privileges to decide on certain local rules for security, fitness and ease of the public in its area.

Adding to this point, clause 74 of the Act 133 mentions that a local authority has the prerogative to approve certain building plans without following the by-Laws when it is satisfied that the building is safe. The local authority will seek the consent of adjoining neighbours only if it regards as necessary and if the council decides to approve the plan contrary to the neighbour’s consent, the local authority has to bring the case to the State Planning Committee to decide and the decision of the local authority is deemed to be approved if there is no revision from the state after 30 days. The rights given in the acts however create nonuniformity of renovation guidelines among the local authorities which leads to the difficulty to architects or registered building draftsmen in submitting building renovation plans. This circumstance causes delays in building plan approval that becomes the reason that some house owners give for not submitting building plan for approval (Ali & Zakaria, 2012).

Renovation guidelines are not included in the preparation of the Local Plan as well as Structure Plan. According to Act 172, Structure Plan is a general scheme of the state authority in respect of the development and

land usage throughout the state. Meanwhile, Local Plan is proposed by a local authority in conjunction with the Structure Plan containing more detail descriptions of the development and land usage, protection and enhancement of physical environment such as building, infrastructure, amenities and open space in the local authority area. In preparing the Structure and Local Plans, public participation is sought although not for renovation guidelines.

### **Design Considerations In Renovation Guidelines**

Architects generally prefer renovated facade design to be in harmony with the design of adjacent lots. This notwithstanding renovations which change the façade design are common in Malaysia Saji (2012). As far as the existing renovation guidelines are concerned they are mostly concerned with building setback and building height.

A house owner intending to renovate or extend his house must submit the renovation plan directly to the building department of the local authority. Act 172 states that it is not necessary to obtain approval from the town planning department of the local authority for extension and renovation works that do not implicate changes of building usage, material or substantial changes of building façade, addition to building height or area and any work that does not conflict with the Local Plan. However, should it include effects of changes in colour, material and design style of the facades as well. Clause 19(2)(ii) of Act 172 states no

planning permission is required only if the renovation that does not “materially affect the external appearance of the building”.

## **PUBLIC PARTICIPATION MODELS**

### **Public participation in Malaysian Town Planning**

While there have been many studies on the role of public participation in establishing building standards (Saruwono, Mohd and Omar, 2012; Alnsour & Meaton, 2009; Saji, 2012), those on illegal renovations are scarce (Yau & Chiu, 2015). Through the policy Delphi method, Yau and Chiu (2015) tried to identify a suitable method for minimising the problems of illegal buildings and renovations in Hong Kong. Their study concluded that increasing penalties and better enforcement is preferable. It is suggested that by involving the public in the early stages of setting up renovation guidelines can produce better rules in the public interest (Alnsour & Meaton, 2009).

All local government authorities in Malaysia has its own set of standard guidelines for building renovation and extension. These guidelines are in accordance with the Town and Country Planning Act (Act 172), the Street, Drainage and Building Act (Act 133) and the Uniform Building Bylaws 1984 (UBBL) albeit with some local rules and modification. Even though renovation guideline is not incorporated in the setting up of the Structure and Local Plan of the Planning Act, the use of public participation in the Planning Act (Act 172) really merits an insight. Public participation

has been in the planning Act of Malaysia since 1927. Back then, it was called the Town Planning Enactment (TPE) of the Federated Malay States (before Malaysia's Independence). It was then amended in 1972 to become Town and Country Planning Act, Act 172. However, the type of public participation employed in the act has not changed significantly (Maidin, 2011). The public involvement is limited to giving comments and feedbacks only during the final stages of the decision making process.

Act 172 also limits those who can participate in the process of planning approval. If there is no existing Local Plan in a new development scheme the local authority has to consult the neighbour of the proposed land for comments. The issue here is the definition of the neighbours. According to Section 21(8) of Act 172, "neighbouring lands" means:

- a) Lands adjoining the land to which an application relates,
- b) Lands separated from the land to which an application made under this section relate by any road, lane, drain or reserved land the width of which does not exceed 20 meters and which would be adjoining the land to which the application relates had they not been separated by such road land, drain or reserved land,
- c) Lands located within 200 metres from the boundary of the land to which an application under this section relates if the access road to

the land to which the application relates is a cul-de-sac used by the owner of the lands and owners of the land to which the application relates."

Maidin (2011) pointed out that only the registered land owners of the neighbouring lands as specified in the act have the right to object which limit other concerned neighbours to participate such as the tenants, squatters or non-governmental organisations (NGO). Strict adherence of Act 172 can be time consuming involving the building department, local authority, public notice, public hearing as well as the consent of adjacent neighbours. Thus, many local councillors have taken steps to reduce red tape process by developing their own sets of renovation and extension guidelines as per clause 74 of Act 133. The problem lies in the lack of direct public input, therefore, a revised method of public input in the form of direct public participation is desirable.

### **Comparative Public Participation Models**

As cited by Shipley and Utz (2012), Innes and Booher suggest that the "traditional method" of public participations evolved for 40 years until the year 2000's are not on the right track for the following reasons:

- 1) The proposition or agreement achieved does not involve real cooperation among the relevant parties.

- 2) The decision or understanding of the government personnel have not been essentially affected by the input of the public participation.
- 3) The public are sceptical whether their opinions are really taken into account in the decision made.
- 4) The outcome of the public participation does not enhance the resolution achieved by the government.
- 5) The decision of the public participation does not express the opinion of the wider cross section of the community.

Weaknesses in the consultation process could result in the failure to take into consideration factors that can impact on the home and its immediate environment (Duhr, 2005).

Currently, there are many public participation models that local authorities can learn from. Shipley and Utz (2012), state that there are general guidelines that can provide guidance on ranking the

levels of involvement of the community participation from merely informing or self-management to total empowerment of the public. Looking at the current scenario of public participation employed in Act 172 the Malaysian public is by and large located at ladder 4,5 or 6 in figure 2. This research will further investigate the type of public participation methods that local authorities will agree to draw on in relation to rationalizing building renovation guidelines in Selangor. Shipley and Utz (2012) also raised several points from previous studies to be considered. They are:

- 1) The maturity of public participation in planning process is still progressing.
- 2) We should reassess the method of “consultation” in public participation since it has become very commonly preferred by public officials that other methods may lose ground.
- 3) Proper trainings should be conducted to public officials about public participations to ensure better effectiveness of the decision.

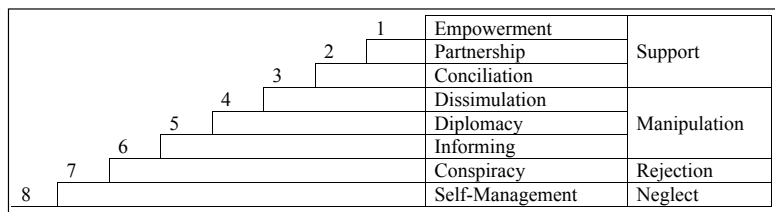


Figure 2. The participation ladder to relate to developing countries (Shipley & Utz, 2012)



Meanwhile, Innes, Judith and Booher (2004) believed that the collaborative participation method to achieve the desired result for all parties is ideal as it involves all stakeholders as the nucleus of a dialogue which can create well informed participants. Omar and Ling (2007) suggested organising a series of workshops and exhibition at the beginning, middle and end of the process can promote the stakeholders to be actively involved in the preparation of plans. In addition they recommend employing focus group to aid the public and stakeholders in understanding the issues concerned.

The objectives of this study are to initiate a building renovation guideline feedback from the public, analyse public opinion from professionals and authorities, and come up with new building renovation guidelines.

## CONCLUSION

This paper is part of an ongoing research to evaluate the effectiveness of public participation in framing the building renovation guidelines for terrace houses in Malaysia. It contends that feedback from the public is crucial to help reduce gray areas in the enforcement practices to produce a sounder set of renovation guidelines and reduce unnecessary waste of manpower spent on enforcement.

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## **The Impact of Heritage Tourism to Local Culture and Economy**

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### **ABSTRACT**

Heritage tourism has impact on host community and their way of life. Preservation and appreciation of cultural heritage elements, both tangible and intangible have socio-economic values that could be promoted through heritage tourism. The study shall examine the potential cultural and economic impact of heritage tourism in Kampung Morten, Melaka, where local Malays living in the city provide homestay accommodation. The result of this study indicated that the majority of respondents agree that heritage tourism has affected their socio-culture through the display of culture in their daily life activities, however, the activities does not play significant role in enhancing micro-economy. A top down initiative in the form of funds from government agencies as well as training programmes are needed to strengthen this sector of the economy.

*Keywords:* Heritage tourism, homestay, tourism programme, tourism

### **INTRODUCTION**

Built heritage comprises as buildings, monuments, landscapes, urban areas, countryside, maritime sites, buried remains and objects (UNESCO).

In Malaysia, there are two tourist cities: Melaka and Penang, which are famous because of their heritage status.

As mentioned by Tiesdell (1996), cultural heritage can contribute pedagogically and educationally to the culture and memory of a place. Cultural heritage tourism refers to tourism oriented towards the cultural heritage of the location concerned.

Melaka, is one of the cities where a prominent built heritage can be found, and is listed as World Heritage Sites by UNESCO in 2008. Melaka can promote a distinctive multicultural architecture with strong

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Islamic, Chinese and Western influences, religious practices, folklore traditions, and social customs. Melaka also being considered as a living heritage city due to the existence of local community where they do not want to living within the rules and regulations that do not allow them to make changes to their properties.

Heritage tourism in the form of homestay tourism was introduced by the Ministry of Tourism in 2001 as a means to multiply tourism products. The programme served as a “double-edge sword” i.e. widening rural economic base and diversification of income and creating local jobs, and at the same time promoting community-based conservation of local traditional culture and lifestyle. According to Farah and Nor Hafizah (2016), the dynamic of the homestay experience is based on the encounter between the guest and society.

This study examines the perception towards heritage tourism among local people in Kampung Morten, Malaka; a traditional Malay village in the heart of Melaka. Named after J.F Morten, a former collector for Land Revenue, Kampung Morten nestled in a bustling modern city (Majlis Bandaraya Melaka Bersejarah, 2010). The village is well known for its hospitality and where Malay culture and tradition is showcased to visitors. The village has evolved to become a hub for the Malaysian tourism industry.

## **METHODS**

The study adopted both quantitative and qualitative method to gather information. The main aim of the questionnaire to

solicit information regarding the effect tourism activities on the host community. Besides that interviews were carried out to obtain qualitative information particularly respondents perspectives on what they feel about having tourist coming and going whilst the try to live their daily life. The questions were designed to give an insight on the perspective of the respondents on heritage tourism activities at their place as well as on the impact of tourism local culture and economy. Cultural impacts might be from the incoming of tourists through several types or sources. According to Manap, Aman and Rahmiati (2011), the negative impacts of cultural will cause the degradation of the environment and also to the evolution of cultural traditions. It will be a good example if there will be a positive exchange in culture between these two populations. Furthermore, there might be two types of tourists whether they are interested to know in details about the local culture or merely a visitor.

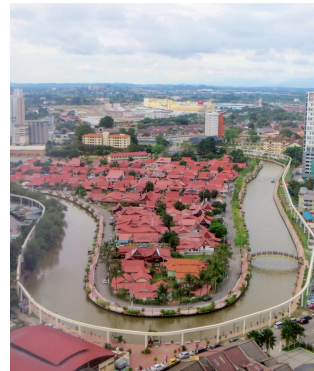
Questions asked in the survey were designed to gather overall pictures of what is happening in Kampung Morten and to what extend heritage tourism has affected the way of life of the occupants. Often, in Malaysia, people who stayed at the same village are family related. The extended family relation created a unique socio-cultural tradition. It has also influence the socio-economy of the occupants. It is common for the younger generation to continue the occupation of their elders. Where, there is stability in home economy, there are no needs to search for other jobs. The survey looks at the type of

occupation of the respondents in order to identify how many of them run a homestay and benefitted from the tourism industry. Questions on how the respondents benefitted from the industry and how they accept changes brought by the tourism programmes were asked to study the social impact of tourism to the people.

### **Heritage Tourism in Kampung Morten**

Economic impacts also need to be considered and was addressed in the survey. Tourism is capable to increase in the standard of living of host residents and helps the host community and country earns foreign exchange. Furthermore, numerous studies may be focused on the employment opportunities, standard of living, the revenue that a community derives from tourism activities, and cost of living (Manap et.al., 2011). Economic gain from heritage tourism comes in many form. Community-based social entrepreneurship, inherent in the small units of societies (Smith & Barr, 2007), plays a very important role in impoverished populations and rural communities. Homestays as a form of social entrepreneurship and operated in rural communities can be stepping stones towards sustainable development by reducing poverty and enriching destination image (Acharya & Halpenny, 2013).

Economic gain can be measured in the numbers of local tourism projects. As a host, Kampung Morten would provide several paid services to accommodate the tourists during their visitation. Homestays pay equal attention to maximizing utilization of



*Figure 1.* Aerial view showing Kampung Morten in Melaka

*Source:* Hunt, 2014

local resources and regeneration of tourism products, for examples, transportation services, food and beverages, and also small business incubation. Tourism provides job opportunities to the local community and will increase their standard of living.

The Melaka Structure Plan 2000-2010 outlined the State Government's policy to encourage the development of the heritage tourism industry and to strengthen heritage tourism products (Majlis Bandaraya Melaka Bersejarah, 2010: p2-2). Another aim was to 'obtain local participation and acceptance of conservation projects with active participation of the community in projects' (Majlis Bandaraya Melaka Bersejarah, 2010: p2-3).

Maintaining and preserving heritage tourism assets should a joint effort between local authority and the residents.

Sustainable regional economic development requires that tourist numbers to such places remain consistent and that tourist expenditure is sustained. Kampung Morten provides this opportunity. Nonetheless, to

sustain the source of income, resources for maintenance and for promotion must be found from the expenditure of the visitors. This adds to the sustainability of the total product, and reduces the regional dependence on government budgets, which are becoming increasingly tight (Ciegelski et al., 2001). Furthermore, Butler (1999) argues that there is no universally accepted definition of “sustainable tourism” except that the form of tourism can maintain its viability in an area for an indefinite period of time.

## RESULTS AND DISCUSSION

### Basic Profile of Respondents

The respondents consist of 192 local people who had lived in the village for generations. Data analysis indicated that 7.8% are the

homestay operators. In term of household monthly income, 70% of the respondents earn less than RM2000 monthly. Majority of the homestay owners had operated the business for less than 5 years and none received any kind of fund for maintenance and providing for tourism activities.

### Respondents’ perception on the economic impacts of heritage tourism activity

Seven (7) questions (Table 1) related to the economic impact of heritage tourism (HT) revealed: majority of respondents agreed that HT creates local jobs (58%), generates more stable monthly income of household/ tourism operators and increased the price of land and property values. The feedbacks was generally positive.

Table 1  
*The economic impact of tourism activities in Kampung Morten Melaka*

Statement	1	2	3	4	5	Total
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	n
1. Heritage tourism creates job opportunities to the villagers.	1	11	22	111	47	192
2. Heritage tourism helps to generate income by providing opportunities for a diverse economic.	0	12	20	115	45	192
3. Economic activities can helps to protect income levels by create the opportunities for pluriactivity.	0	5	31	104	52	192
4. Heritage tourism cause the price of land, property, goods and facilities increase.	0	4	25	89	74	192

Table 1 (continue)

5.	I am fully depending on the economic activities in Kampung. Morten for my source of income.	9	73	40	45	25	192
6.	Homestay programme can promote the area as tourism sites.	0	2	26	122	42	192
7.	Local community can earn an additional income from homestay programme.	0	6	29	95	61	192

Source: Author, 2016

**Respondents’ Perception on the Socio-Cultural Impacts Of Heritage Tourism Activity**

To study the perception of residents regarding the socio-cultural impact of HT activity, nine (9) questions were asked (Table 2). 46% of respondents agreed that cultural exchange between villagers and visitors can affect the everyday life of the local community. The activities inevitably create a platform for the villagers to promote local culture. The residents also agreed that visitors contribute to greater awareness and revitalization of local customs, crafts and cultural identities. 63% of the respondents agree HT helps to increase social contact between the villagers and the visitors and increase the unity between local communities and the

visitors (50%). Most respondents stated that they enjoy the presence of the visitors in the village. .

The respondents also agreed that by establishing homestay programme in this area; it can introduce the traditional lifestyles either to the tourists or to the young generation as well. 48% believes that younger generation should involve in this community based programme in order to sustain the activities. They need to be exposed on how homestay programme could benefit their local economy and how to move forward to make the programme successful.

Nevertheless, 35% of respondents stated that HT has created congestion and crowding, impinging on their privacy.

Table 2

*The socio-cultural impact of tourism activities in Kampung Morten Melaka*

Statement	1	2	3	4	5	Total
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	n
1. The incoming of visitors give a greater awareness and the revitalization of local customs, crafts and cultural identities.	0	3	46	98	45	192

Table 2 (continue)

2.	Heritage tourism helps to increase social contact between the villagers and the visitors.	0	5	29	121	37	192
3.	Congestion and crowding happens which impinges on the day to day life and privacy of local residents.	1	38	52	68	33	192
4.	Heritage tourism creates a space for cultural exchange between the villagers and the visitors.	1	4	51	96	40	192
5.	Many facilities and attractions are built to ensure the ongoing incoming of the visitors.	0	7	31	90	64	192
6.	The exchange culture between the villagers and the visitors effect the everyday life of the local communities.	1	16	40	88	47	192
7.	The maintenance and support of local services will be increased.	0	5	40	92	55	192
8.	Heritage tourism helps to increase the unity between local communities and the visitors.	0	3	32	96	61	192
9.	Homestay programme can promote traditional lifestyles among the young generation in this area.	0	3	34	93	62	192

Source: Author, 2016

From the data collected it can be concluded that most of the respondents feel that heritage tourism is a good thing. They would be happy and pleased if Kampung Morten is promoted as an international tourism destination.

## CONCLUSION

In conclusion, the study has solicited crucial information from the host community

regarding the economic and cultural impacts of heritage tourism on residents. Heritage tourism as described by the respondents could potentially create local jobs in tourism and other tourism-related activities, and provide a satisfactory household income. From the socio-cultural point of view, heritage tourism offers huge potential for promoting local culture to tourists, enhancing cross-cultural learning and creating awareness



and education among visitors. However, heritage tourism development and its progress in Kampung Morten is without its challenges including (a) lack of training; (b) lack of assistance from relevant agencies (funding for training/human capital and infrastructure, development grants, etc); (c) monitoring of heritage tourism progress towards sustainability etc.

(a) Lack of training

The local authority needs to welcome more local community to participate in the homestay programme by increasing the number of homestays and pointing out the economic benefits of this business.

(b) Lack of assistance from relevant agencies (funding for training/human capital and infrastructure, development grants, etc)

Small financial loans from the government may be necessary to facilitate the development of additional homestays in the region (Acharya & Halpenny, 2013). and thereby increase participation in this sector.

(c) Monitoring of heritage tourism progress towards sustainability etc.

Like many programmes either initiated by the local authority or the community, progress monitoring is important to ensure its sustainability. Being a nation's Heritage Village, a good

conservation management plan (CMP) is crucial. Residents and the authorities should work together to ensure the implementation of the management plan. Economic regeneration scheme should be included in the CMP to support the local economy. Regeneration of local economy would serve as a catalyst for future improvement to Kampung Morten to enhance the quality of life of the residents.

### ACKNOWLEDGEMENT

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## **Visual Responses of Visitors towards Daylighting in Museums: A case study of Malaysia**

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### **ABSTRACT**

Daylighting in historic buildings is not easy to manage as natural light fluctuates. This study aims to evaluate visitors' visual responses and opinions towards daylighting in four selected galleries in museums. Intensity of illumination and visitors feedback were obtained through fieldwork. Instruments employed were data logger management system and light sensors at test points on showcases and display panels. The questionnaire was on the respondents' perception of daylight conditions at two different display panels (against window wall-*AWW* and opposite window wall-*OWW*). The illuminance assessment and evaluation indicated that the display placement affected daylight distribution pattern while the daylighting pattern affected the visitors' viewing satisfaction. The study examines daylight distributions and the visitors' visual perception and satisfaction in relation to the exhibits and interior configuration of the museums. The study found significant effect of exhibit condition and interior design parameters on indoor daylight performance and visual comfort. The results of this study contribute to the planning of appropriate lighting to minimise visual discomfort in museums.

*Keywords:* Daylighting, display placement, historic museum galleries, visual comfort

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### **INTRODUCTION**

Museums' lighting are aimed at enhancing the display of its objects, while ensuring conservation needs are met. However, the lighting condition which increases the brightness of the objects to enhance visibility can damage them and thus at odds with conservation efforts (Mueller,

2013; Pinilla et al., 2016). Earlier studies have indicated that artifact damages due to lighting are mainly due to direct sun penetration over the display areas (Ahmad, Sh Ahmad, & Talib, 2013; Ahmad, Ahmad & Talib, 2012; Osterhaus, 2005; De Graaf, Dessouky & Müller, 2014). Glare and reflection from daylight, are the most commonly encountered problem that caused environmental discomfort (Hua, Oswald, & Yang, 2011). Interior daylight can differ sharply according to external obstruction, building area and orientation, floor level, glass type, shading and window area (Xue, Mak, & Cheung, 2014).

### **Glare and Visual Discomfort**

Daylight can cause visual discomfort such as glare, reflections, light veiling or shadows (Alrubaih et al., 2013). Glare is a major concern of for buildings that faces east and west (Hua et al., 2011). Menzies and Wherrett (2005) reported that Boubekri and Boyer (1992) found that facades with window to wall ratio (WWR) of between 40 and 55%, reported above average visual discomfort due to glare. Osterhaus (2005) explained that glare from windows are the result of direct sunlight or sunlight reflected off exterior surfaces that “enter a room and shine into the eyes of occupants or reflected off visual tasks and surrounding surfaces”. Hua et al. (2011) found that horizontal shadings on the east and west facades of buildings are effective in supporting visual comfort and satisfaction of daylighting environment compared with vertical shading elements.

Wilson (2006) explained that the objects displayed against windows are against a high luminance (very bright) background. The surface colour and reflection could also have a key impact on the level of illuminance in an interior (Wilson, 2006). He explained that very bright light sources produced reflections on the glass of display cabinets, thus affecting the visibility of objects within the cabinet; resulting in veiling. Our sensitivity to veiling reflections depends on the balance between brightness of the reflection and the object. A low reflection surface in the background of the glass cabinet may reduce the adaptation of the eye, and improve visibility of the exhibits (Wilson, 2006).

According to Hopkinson (1972) as cited by Dahlan (2005), there are four basic criteria of glare that can be highlighted under a series of different conditions of surrounding brightness: i) Perceptible glare; ii) Acceptable glare; iii) Uncomfortable glare and iv) Intolerable glare (Hopkinson; 1972). In this research, the above-mentioned criteria are used to rate the user’s glare experience.

This study assessed the visitors’ visual responses and satisfaction levels of daylighting in selected museums in Malaysia. Field investigations were conducted in order to measure vertical and horizontal illuminances on display panels in different galleries: balcony, corridor, compartments and open areas. Results showed the effects of the exhibits’ condition and interior design parameters on indoor daylight performance and visual comfort.

**METHODS**

This study measures indoor illuminance levels and visitors’ visual responses of the daylighting conditions at four selected museums in Malaysia. These buildings share similar characteristics: lighting of highly sensitive materials (printed materials), and orientation; east and west facing galleries allowing for comparison but with different display types and placements. The performance of daylighting was assessed based on side lighting design in four types of linear gallery space: balcony, corridor, compartments and open areas.

The galleries selected are: Admiral Cheng Ho Gallery, Melaka, M1; The Kuala Kedah Old Fort Museum, Kedah, M2; The Kota Ngah Ibrahim Historical Complex, Perak, M3 and The War Memorial, Kelantan, M4 (Table 1) which are located in Southern, East, Central and Northern parts of Peninsular Malaysia respectively. The study evaluates at two types of showcase and display panel placements; one against the window wall and the other on the opposite of the window wall (Figure 1 and Figure 2).

Table 1  
Case study inventory

Case Study	Showcase Design	Exhibit Orientation	Window Orientation	Type of Fenestration	Floor area (m <sup>2</sup> )	Room depth (m)	WWR	Exhibit distance to window (m)	Exhibit height (m)
M1	Glass Showcase	West Facing	West & South	Wooden casement w/ adjustable louvers	43	3	0.20	3	1 (h)
M2	Perspex Showcase	East Facing	East & South	Casement w/ adjustable louvers	69.9	6	0.11	2.7	1.5 (v)
M3	Exposed Display panel	East Facing	East & South	Tinted glass window w external roller blind	91.5	3	0.71	3	1 (h)
M4	Exposed Boxed-up display Panel	West Facing	West & North	Clear glass window	42	3.6	0.24	1.7	1.5 (v)

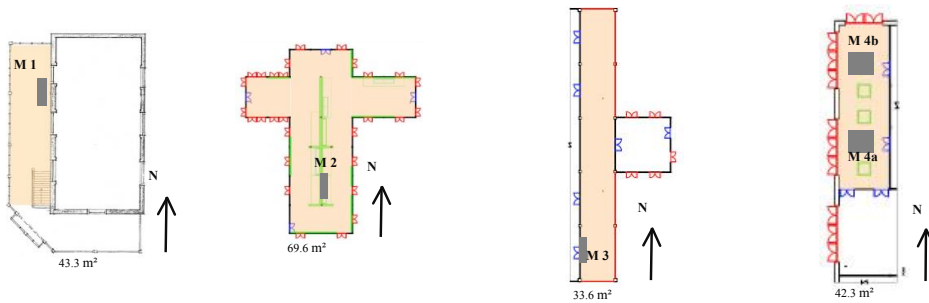


Figure 1. Gallery plans showing side lighting function of museums M1, M2, M3 and M4



Figure 2. Various display arrangements. M1- glass showcases, M2- perspex showcase, wall & top display panels, M3 wall panels and M4- freestanding island display panels

There were two types of exhibit orientation; one horizontal (shelf) at 1m above the floor level and the other vertical (vertical panel) at 1.5m above the floor level. These case studies were selected as they presented the indoor daylighting with similar characteristics: the demand for certain level of lighting, with similar museum exhibits of highly sensitive materials (printed materials), and with similar orientation: east and west facing galleries allowing for comparison but with different display types and placements.

### Data Collection

Field work was carried out between March and December 2010 to assess the daylight illuminance levels based on visitors' perception and visual responses

of the indoor environment. During the experiment, artificial lights were switched off and indoor illuminance values at major points were recorded using the light sensors and data logger system. This system was programmed to record measurements at one-minute interval and subsequently, further calculations based on the hourly average illuminance were performed. All the measurements were conducted under overcast and intermediate sky conditions.

Observations were made under three consecutive daylight conditions; 09.00h to 11.59h (morning); 12.00h to 14.59h (afternoon) and 15.00h to 16.59h (evening). A total of 86 respondents participated in the questionnaire survey to evaluate the exhibit condition and indoor illuminance levels.

**RESULTS AND DISCUSSION**

Figure 3 shows the average illuminance level for the showcases and display panels at M1, M2, M3 and M4. Results indicated that the illuminance level in each museum between 09.00h and 16.59h (M1 & M4)

and between 08.00 and 17.59h (M2 & M3) differed significantly, where most lighting conditions exceeded the maximum recommended light limits of 50lx for Category I- Highly responsive materials (Ahmad et al., 2012).

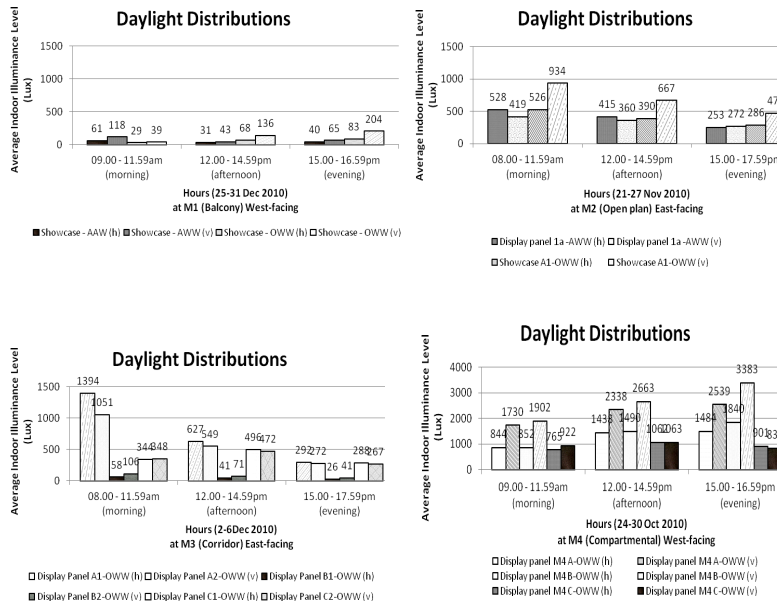


Figure 3. Average illuminance levels at horizontal and vertical points at M1, M2, M3 and M4

The display panels at M2, M3 and M4 were over lit above 200 and 300lx of average illuminance level, which exceeded the maximum recommended illuminance level for Category II - Moderately responsive and Category III - Non-responsive materials respectively (Ahmad et al., 2012). Results showed that the average illuminance of the three daytime periods in M1 ascended from morning till late afternoon at all placements; M2 for the east facing windows

showed a different trend in illuminance distributions, which registered a decrease in level of illuminance in the afternoon and late afternoon. Similar pattern of daylight distributions was observed at M3 with the same east facing orientation. Based on the case studies in Table 1, both M1 and M2 showed higher average illuminance registered opposite the window wall compared with against the window wall, obviously due to the direct side lighting

from the windows. M2, M3 and M4 showed a higher mean illuminance compared with M1 due to different room orientation and their large operable window to wall ratio (WWR), namely 0.11, 0.71 and 0.24 respectively.

### **Illuminance levels based on Exhibit Orientation (Horizontal, Vertical)**

Figure 3 shows the illuminance levels in each museum's exhibit orientation between 09.00h and 16.59h (M1 & M4) and between 08.00 and 17.59h (M2 & M3) differed significantly. In each daytime period, the average illuminance levels for both M1 and M2, ascended as the day progresses. Whereas, both M2 and M3's average illuminance levels were widest in the morning, but decreased in the late afternoon, due to the decreasing external horizontal illumination in the late afternoon. During each daytime period, higher illuminance level was detected at vertical orientations compared with horizontal exhibit orientations in all museums.

The vertically exhibit orientation in M4 showed higher average illuminance compared with M3 with larger operable window to wall ratio (WWR) of 0.71, due to the changes in sun orientation as the day progressed and higher transmittance of clear glass windows in M4. This also showed that M3 with larger WWR of 0.71 received less vertical light distribution compared with M4 with WWR of 0.24, due to the external roller blinds projected along the tinted glass

windows and the existing balcony located at the centre of the gallery, which diffused the light.

### **Visual Comfort**

Visitors in general, found the daylighting conditions satisfactory. However, a few of them indicated daylighting in the morning were slightly dimmer and the temperature conditions neutral. Brighter conditions were observed during the afternoon and evening with slightly warm temperatures. Visitors in M1 and M3 found the daylight conditions slightly dimmer throughout the day compared with visitors in M2 and M4. Basically, M1 and M3 visitors opined that both daylight and artificial light sources were important as they increased their visual satisfaction. Meanwhile, M2 and M4 visitors perceived the daylight conditions as slightly brighter and M2 visitors felt that the use of artificial light was unimportant, whereas M4 visitors perceived the conditions to be neutral.

Visitors' feedback also revealed that warmer temperatures were felt by M1, M2 and M4 visitors throughout the day while M3 visitors experienced slightly cooler conditions. Thus, the slightly dimmer conditions were most likely due to smaller WWR 0.2 (M1) and WWR 0.7 with external shading (M3). Moreover, temperature could be affected by external shades (M3). On the other hand, the multi-lateral side lit windows WWR 0.1 (M2) with similar internal reflections and higher height of clear glass



windows WWR 0.2 (M4) have contributed to slightly brighter lighting throughout the day.

All the respondents disagreed slightly that the glare affected the display in the

mornings (Figure 4). However, they agreed that this was the case during the afternoon and evening. All the respondents agreed slightly that the glare affected the display throughout the day.

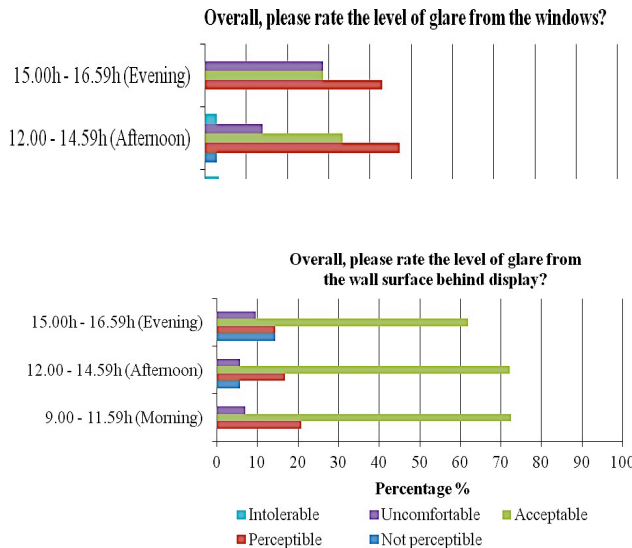


Figure 4. Summary of visitors' perception on the level of glare at M1, M2, M3 and M4

Additionally, all the respondents agreed that the glare from the wall surface behind the display panels were acceptable throughout the day (Figure 4) and evening. However, the reflections on the displays and exhibits were perceptible during the afternoon. A few respondents in M1 and M2 agreed that the reflections on the displays and exhibits made them feel uncomfortable throughout the day.

Meanwhile, M3 and M4 visitors claimed that the reflections on the displays and exhibits were at an acceptable level throughout the day. Further observations also

revealed that the higher reflective properties of displays such as glass (M1) and perspex (M2) showcases contributed to feelings of discomfort among the respondents compared with lower reflective properties of exposed wooden display panel at M3 and M4 respectively. In addition, lower reflective surface or matte finishes (M3) may have contributed to less reflection. Indeed, the external shades (M3) may have lessened the impact of distribution of day light in the galleries.

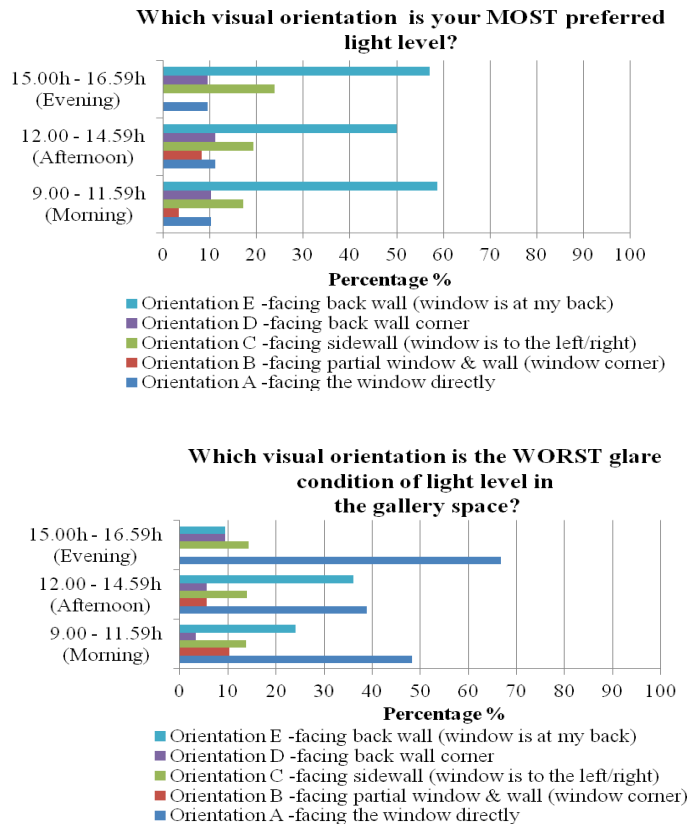


Figure 5. Response vote on visual orientation at M1, M2, M3 and M4

All the respondents expressed that the “Orientation E-facing back wall (window is at my back)” was the most preferred visual orientation and preferred light level condition throughout the day (Figure 5). The “Orientation A-facing the window directly” was the worst visual orientation in relation to glare.

**CONCLUSION**

A questionnaire survey and field work were conducted to assess visitors’ visual responses towards daylighting in selected museum galleries in Malaysia. The following

conclusions about the effects of exhibit condition and interior design parameters on indoor daylight performance and visual comfort can be drawn.

- i. There were larger variations in illuminance levels in all the galleries; M1 (WWR 0.2); M2 (WWR 0.1); M3 (WWR 0.7) and M4 (WWR 0.2).
- ii. M1 (WWR ratio 0.2) opened windows and M3 (WWR ratio 0.7) with external roller blinds projected along the tinted glass windows indicated slightly dim

conditions. The responses of the vertically pivoted traditional wooden casement with adjustable louver windows and lower internal surface reflectance values served for M1 (WWR 0.2) and the responses of the balcony and external roller blinds projected along the tinted glass windows for M3 (WWR 0.7) had minimised daylight illuminance levels.

- iii. Daylight caused glare, particularly in the afternoon and late afternoon in all the galleries.
- iv. The levels of glare from windows were perceptible throughout the daytime in all case studies. Higher window heights M4 (WWR 0.2) and multilateral side-windows M2 (WWR 0.1) with similar internal reflections affect visual comfort.
- v. Higher reflective properties of the display such as glass (M1) and Perspex (M2) showcases contributed to perceptible reflection and uncomfortable feeling compared with lower reflective properties of exposed wooden display panels at M3 and M4 respectively.
- vi. The levels of reflections were experienced throughout the daytime in M1 (WWR 0.2), M2 (WWR 0.1) and M4 (WWR 0.2). Some respondents claimed the reflections were uncomfortable and intolerable. This was due to higher reflective properties of the exhibits. However, majority of respondents found the reflections on the exhibits were acceptable in M3. This was probably due to their lower reflective surface or matte finishes that contributed to less reflection. Perhaps M3's external shades have lessened the impact of daylight level of illuminance in the galleries.
- vii. M3 (WWR ratio 0.7) with external roller blinds projected along the tinted glass windows needed extra lighting (via electric light) to increase the visitors' level of satisfaction throughout the day; M1 (WWR ratio 0.2) with opened windows indicated higher demand for daylight compared with electric light; M4 (WWR ratio 0.2) with clear glass windows indicated higher neutral responses for both daylight and electric light and M2 (WWR ratio 0.1) multilateral opened side-windows indicated that the daylight was slightly important compared with electric light. Some respondents observed that electric light was slightly unimportant to increase their visual level of satisfactions.
- viii. The orientation E - facing back wall (the window facing the back of the visitors) was the most preferred visual orientation and level of lighting in all the galleries. Meanwhile, orientation facing the

window directly had the worst visual orientation and glare.

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## **The Factors and Outcomes of Social Media Dependency Framework**

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### **ABSTRACT**

Social Media Intelligence Quotient (SMIQ) refers to social media literacy, business literacy and social intelligence. Users of social media attitude towards it is shaped by their personality, media platform and social support to stay online. Using social media can improve fresh graduates' marketability and employability. There are many factors that influence social media dependency such as the social system, media system and personality system. The purpose of this paper is to examine the factors of social media dependency and identify its implications among graduates. It aims to develop a theoretical framework based on a modified Media System Dependency (MSD) Theory.

*Keywords:* Social media dependency, Social Media Intelligence Quotient, social media literacy, business literacy, social intelligence

### **INTRODUCTION**

There are many interactive applications and instruments found on the internet which attract the users to stay and browse online longer. Laurence (2012) explains user spend time on the internet for various reasons, such as employment, professional relations

and social interactions. The experienced internet users have greater self – control in terms of their addiction to the internet and apply it more purposefully because they have greater exposure on internet usage and function (Mafé & Blas, 2006). Nevertheless, internet users who choose social media as their primary activity while online has created what is termed as social media dependency. The uniqueness of social media has transformed our daily lives in many ways, especially the millennials. It has improved social media skills among students that enhance their communication

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with university authorities, connecting with outsiders, and locating experts for their research areas (Gualtieri, Javetski, & Corless, 2012). Thus, it is crucial to identify the most common and popular applications on the internet, time spent online and on each application and what attracts the users to use the same application frequently (Joshua, 2005).

### **SOCIAL MEDIA DEPENDENCY**

According to Tsai et al. (2009), college students use the internet in different ways compared with other youngsters which has an effect on their habits and behaviour. The social media is used as a platform to create networking and for knowledge sharing, business dealing and employment. Furthermore, undergraduate students are technology savvy and fast learners in technology development, making them the most active group as they follow the latest trend of technology, high self-expression and exposure, short usage cycle (Park, 2010). Poh et al. (2012) describe those who use social media excessively (more than 30 or 40 hours per week) as high dependent users, interfering in their daily lives. There are few determinants of social media dependency such as a social system, media system and personality system that will affect the social media usage among the users.

#### **Social System**

Social media has become an important tool of communication to build and consolidate relationship with peers, relatives, colleagues

and others who share the same interest (Narasimhamurthy, 2014; Rahat & Singh, 2014). University students in particular, have unlimited access to the internet, flexible time and enjoy freedom in terms of access to the internet, free from parental and university control (Kuss, Griffiths, & Binder, 2013). It has transformed the lives of individuals, organisations and society (Leung, 2013).

#### **Media System**

In media system, social networks are the most visited websites in which the students engage in online chatting and forums instead of face to face interactions making them highly dependent on the internet (Kuss et al., 2013). Students generally have good knowledge of ICT due to its wide usage in academia. For example, they use tablet PCs, video podcasts and e-books in their learning process (Gualtieri, Javetski, & Corless, 2012). Hence, there are few popular social media used by the college students such as Facebook, Youtube, Twitter, Instagram, Google+ and LinkedIn. Subramani (2015) listed Facebook as the most popular social media used among students followed by Twitter. Meanwhile, Wang, Niiya, Mark, Reich, and Warschauer (2015), found that Facebook, Instagram and Twitter are the most used social media by the millennial.

#### **Personality System**

Personality traits can determine the frequency and motives of internet usage as it can reveal their social norms and habit

during their online activities (Kalmus, Realo, & Siibak, 2011). Tan and Yang (2014) have shown personality as the determinant for technology adoption as they perceive the usefulness of technology and desire its novelty. An individual that is extrovert, neurotic and open tend to use social media in an interactive way (Correa, Hinsley, & de Zúñiga, 2010). Kalmus, Realo and Siibak (2011) show an individual who is open use internet for entertainment while a neurotic individual use it for companionship. Meanwhile, the extrovert uses the internet for socialisation and networking, through online or offline conversation (Tosun & Lajunen, 2010). Additionally, a neurotic knows how to control and respond when they receive information through social media, and those who are open are willing to accept new things and explore new technology (Ross et al., 2009).

### **The Outcomes of Social Media Dependency**

Social media competence encompasses knowledge and expertise and self-efficacy in which attitude plays an important role in enhancing social media literacy (Vanwynsberghe, Boudry, & Verdegem, 2011). The users must possess dynamic behaviour by having right attitude and confidence to use that skill. Bahk, Sheil, and Lin (2010) show a strong connection between social media and the community, especially among millennial, to use that platform to seek job opportunities for example. Indeed, there are a lot of job

opportunities that require employees to have ICT skills because of the development of technology and the frequency of internet usage. According to CIO Whitepapers (2012), social media and business intelligence are related because social media give business values for enterprises to stay competitive, reduce expenses and launch the products in the broadening market. As supported by Zhou and Wang (2014), the rapid development of social media users has influenced organisations to explore the potential of business capacity through social media applications. It indicates that social media and business are can transform the way of life of those who view social media as “the internet of things” (Strategic Foresight Initiative, 2011). Meanwhile, as an active social media user, it enables them to have large networking and be sociable in communities. The users assume everything is readable, recognisable, locatable and controllable from internet spaces. Thus, Social Media Intelligence Quotient (SMIQ) integrates social media literacy, business literacy and social intelligence.

### **Social Media Intelligence Quotient**

According to the US National Chamber Foundation (2011), the millennial is creative and innovative in order to be a successful entrepreneur. Pérez-Bustamante (2014) defined entrepreneurial literacy as skills, knowledge and attitudes to exploit opportunities in order to survive. Those who have entrepreneurial literacy are good at generating ideas, communicating, learn from their mentors, have good time

management, self – directed, information seeker, problem solver, competitive, collaborative, creative and participative in teamwork. Thus, business literacy is defined as the ability to seek, identify, interpret, communicate and evaluate business opportunities and stay alert with market research and development.

According to Vanwynsberghe, Boudry and Verdegem (2011), social media literacy refers to special capabilities in social media applications, knowledge, skills, attitudes and self – efficacy in creating social media content. Jenkins (2008) introduces literacy skills in new media usage that includes play, performance, simulation, multitasking, distributed cognition, collective intelligence, judgment, transmedia navigation, networking, negotiation, appropriation, and visualisation. Digital New Zealand, (2012) has viewed development of technology to document form, quote text and record music, photo, and video. It requires individuals to adapt to the latest technology and multi - media using digital content to perform well in academia even though they are engaged in several social media activities.

According to Hootsuite (2014), social relationship platform is a crucial determinant of social media intelligence for companies because they need to deal with people, especially customers and rivals. The companies must stay alert and engage with from their stakeholders critically and build relationship with them by responding and taking part in online discussion. Thus, it involves social intelligence in developing social media intelligence.

Additionally, many companies hire people with outstanding analytical skills and the ability to engage in the online community as information hunters (Harrysson, Metayer, & Sarrazin, 2013). Social intelligence includes understanding person minds through verbal and nonverbal communication, have good listening skills, sociability, influence others, popular in social sites, have good negotiation and problem-solving skills, good persuasion power and know how to act in different social medium (Doğan & Çetin, 2009). Furthermore, it can influence intercultural communication because they know how to conform with different cultures (Habib, Saleem, & Mahmood, 2013). Social media helps to connect the users with people all over the world and to enable us to learn about their culture and their daily lives.

### **Social Media Dependency Framework**

Ball-Rokeach and DeFleur (1976), propose the media system dependency theory which relates to the factor of dependency and its outcomes (Figure 1). It highlights the relationship between media system, and the social system, the latter includes individuals, groups, parties and so on. It controls information gathering, the transformation of information presentation and distribution of information that involves personal motives (Power, 1995). Apart from that, this system is goal-oriented rather than needs oriented because it shows a personal desire of the users (Yi, 1999). It shows the individuals have their goals when utilising the media, whereby individual media dependency (IMD) is



used to measure their dependency on particular media (Mafé & Blas, 2006).

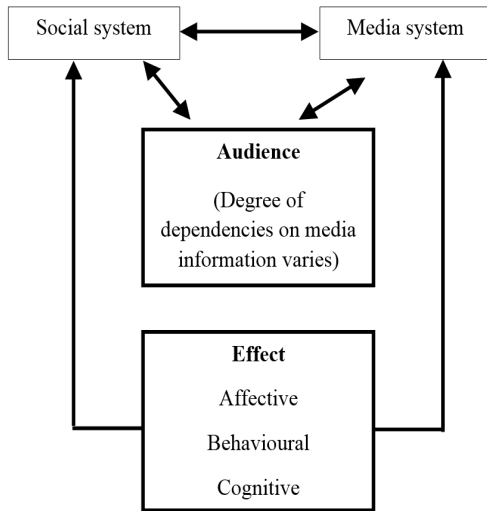


Figure 1. Social Media Dependency framework  
Source: Origin Theory from Ball-Rokeach and DeFleur (1976)

The goals are varied, and different goals can be set up by using the same media even for the same person (Patwardhan & Yang, 2010). Apart from that, there are few types of individual level of dependency such as solitary play, social play, action orientation, interaction orientation, self - understanding and social understanding (Tai & Sun, 2007). This theory was modified by (Negin, Musa, & Wahab, 2013) by adding Personality System in identifying the outcomes because different people will have different degree of media dependency (Figure 2).

There are three predictors of social media dependency which are the endogenous variables in this research. The social system involves societal parties such as family, peers, universities and lecturers.

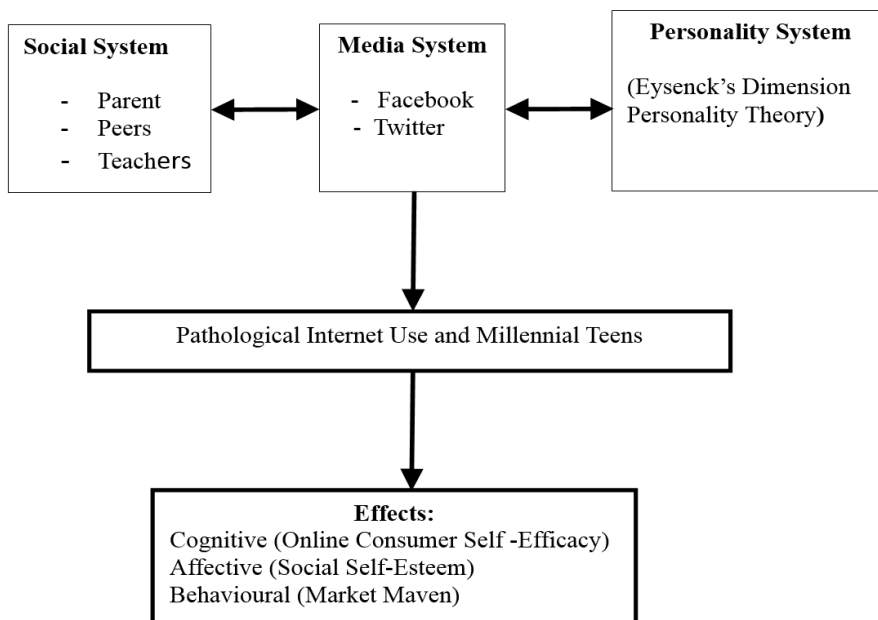


Figure 2. Pathological Internet Use and Millennial Teens Framework  
Source: Negin et al. (2013)

Meanwhile, media system includes social network sites (Facebook and Twitter), online photo sharing (Instagram) and online video sharing (Youtube). Innovativeness and Optimism are vital for personality development. All of the predictors will affect social media dependency among the users. Social media dependency is the latest media dependency among the internet users because most of their daily activities will involve social media, especially for communication, education, networking, business and so on. Therefore, it shows that by spending more time on the internet does not necessarily produce adverse effects,

especially on their psychology.

Apart from that, it will produce positive outcomes for graduates when they have social media dependency. They will possess new skills on social media that would be helpful for them in increasing employability chances upon graduation. Thus, introducing SMIQ for this study is important as there is no way to measure SMIQ among the social media users. Hence, this research produces measurement scale for SMIQ by combining social media literacy, business literacy and social intelligence as the evaluative dimensions for this talent.

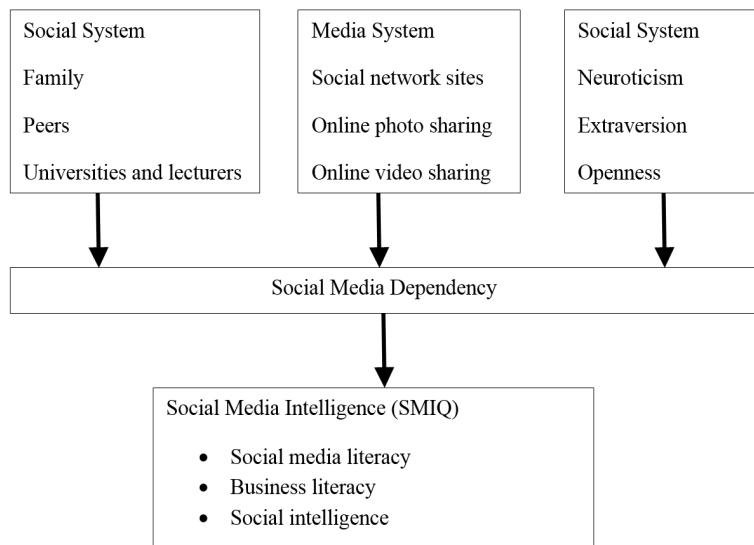


Figure 3. Social Media Dependency Conceptual framework

## CONCLUSION

The excessive use of social media has positive implications on millennial as they use social media in the right path and they know how to prioritise when browsing the social sites. Meanwhile, the present

research shows that SMIQ not only can increase employment chances, but it can produce more successful and independent entrepreneurs in the future to enhance their self - marketability. In fact, there are job opportunities offered by employers in diverse industries for social media experts

at all levels and the number of online entrepreneurs have increased from time to time. It allows the graduates to explore their skills in social media for personal achievement, academia, social and business purposes. Thus, future research should investigate positive implications of social media to identify social media experts in the industries to ensure we are ahead in producing good IT-savvy human capital.

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## **A Qualitative Content Analysis on Technical Competency for Malaysian Construction Managers**

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### **ABSTRACT**

Technical competency of the Construction Manager (TCCM) is paramount for the accomplishment of the Malaysian construction project. Therefore, the authors embarked on a pragmatic research approach to establish the aforementioned competency for various benefits. In this paper, the research investigates the corroborative level of TCCM towards relatively similar competency provision by several indigenous organisations. A qualitative method of content analysis was conducted towards counterpart competency documents by using NVivo V.8 software. Throughout the analysis, the manifested frequency of words coded was recorded, and comprehensive results were gathered and visualised through appropriate tables and figures. In a nutshell, the provision in TCCM has almost exceeded all other relevant technical competency documents, except for document from Organisation B (Project Manager). Validation from industry-academia is needed to highlight this study's contribution to the Malaysian construction project.

*Keywords:* Construction manager, document analysis, NVivo, technical competency

### **INTRODUCTION**

Technical competency comprises knowledge and skills relevant for the job (Mansfield, 1996; Yaman, Abdullah, Mohammad, & Hassan, 2015; Mohammad, Hassan, Abd Rashid, & Yaman, 2016a). In order to establish technical competency, an empirical research was conducted focusing on the job of a construction manager. This is gap in research of this type especially

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in reference to the construction manager’s technical competency (Yaman et al., 2015; Mohammad et al., 2016a). Issues such as delays, wastages, cost overrun, and subpar quality are common themes in the Malaysian setting. Identifying competency via training and education design is fundamental in producing qualified and well trained construction managers (Yaman et al., 2015; Bakar, 2009; Hassan, Maisham, Khan, Alwi & Ramli, 2010; and Ibrahim, Roy, Ahmed & Imtiaz, 2010).

This study first reviews all relevant literature on construction manager’s technical competency (in Mohammad et al., 2016a). Subsequently, a series of semi-structured interviews were conducted to validate all the items in the questionnaire (in Yaman et al., 2015; Mohammad et al., 2016b, 2017). An analysis was conducted based on outliers, normality, dimensionality was directed to ensure data coherences,

before a full-fledged statistical analysis.

There were 271 micro items, 33 meso items, and 16 interconnected macro items. Findings from previous researches confirmed the relevance of the items. Construction manager’s technical competency (TCCM) covers management aspects, materials, labour, plant/machine, and sub-contractor in addition to ensuring safety, money, quality, time, and environment as well as , administration, pre-construction activities, closeout and handover, and responsibilities to third parties, the main contractor, client, clerk of work, and the design team. Computer and Information Technology are regarded as associated technical competencies for the construction manager. Following this, Figure 1 shows construction manager’s technical competency. Hence, this paper will adopt a qualitative approach to analyse qualitative relevant documents related to technical competency (Bowen, 2009).

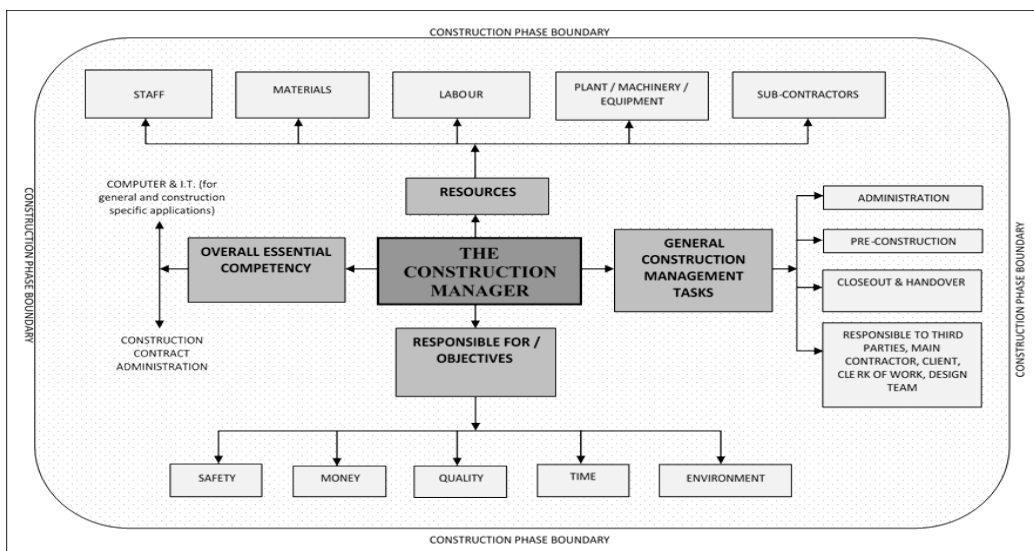


Figure 1. The proposed conceptual framework for Malaysia’s construction manager’s technical competency (TCCM)

**METHODS**

The research question for this study is: “What are the corroboration level of research’s technical competency of construction manager towards local offerings?” Currently, there are several organisations that have exclusive competency models related to construction project. Most of the models have a complete learning package, either for continuous professional development (CPD), tertiary education, or certification (all with different level of learning outcomes).

Through a qualitative content analysis, both manifest and latent values of texts were scrutinised (Khamis, Suratkon, Mohammad, & Yaman, 2017). Manifest is related to similar texts, while latent is commonly associated with dissimilar texts but with similar meanings. This research shows both values and presents the corroboration

outcomes through text coding frequencies. The higher coding frequency demonstrates the concentration of each document.

Critical observation shows human errors on large datasets which is a major hindrance for credible results, especially if using manual analysis (Leech & Onwuegbuzie, 2011). Inconsistency can lead to unreliable outcomes with biased results. Hence, the research tries to minimise potential errors by using software-led approach, through a software called NVivo Ver.8. This particular software gains its reputation as a tool for analysing data which is qualitative in nature, e.g. interviews, photos, documents/texts, and voices (Gibbs, 2002). Further, guided by a series of screening routines (Figure 2), the outcomes are deemed to be exhaustive and produce a less biased analysis. It is expected that the outcomes will present a summary of corroboration levels between

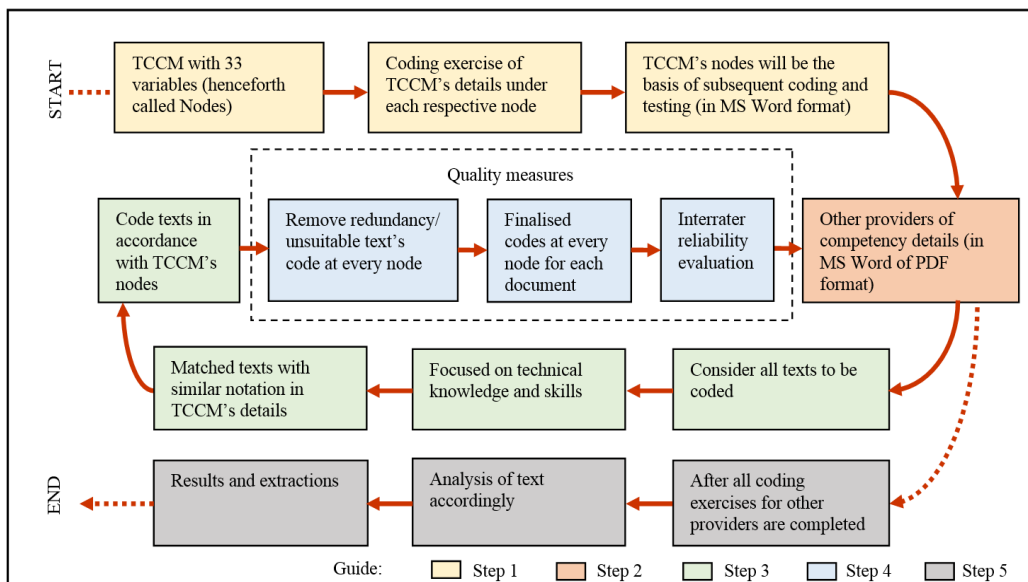


Figure 2. Overall screening processes through NVivo Ver.8

documents and ensure the higher credibility of prior research findings. On the other hand, the results might present useful insights on weaknesses of each document (i.e. through the frequency of coding exercises) (Bowen, 2009; Leech & Onwuegbuzie, 2011; Hsieh & Shannon, 2005).

**DATA COLLECTION AND ANALYSIS**

This reasearch reviewed works by Gibbs (2002), Richards (2005), Welsh (2002), Grbich (2007), Wiltshier (2011), Leech and Onwuegbuzie (2011), Kariya et al.. (2016), Ariffin, Sulaiman, Mohammad, Yaman, and Yunus (2016), and Khamis. (2017). Therefore, several steps were taken based on the findings: Step 1-TCCM as a baseline document, Step 2-Evaluating other competency documents, Step 3-Screening and coding exercises for other competency documents, Step 4-Quality measures, and Step 5-NVivo analysis and extractions.

**Data Collection and Analysis: Step 1-TCCM as a baseline document**

Throughout the entire analysis, TCCM is selected as a baseline document. Meso level variables in TCCM (33 items) were designated as nodes in NVivo (Figure 3). This can accommodate any variability. Additionally, nodes will produce more information to corroborate the outcomes. Consequently, nodes are treated as priori themes (Cho & Lee, 2014). Coding exercises on entire texts of TCCM (originally in MS Word format and imported into NVivo) were conducted, where texts (including the 271 micro level items) were coded

according to their respective nodes. Since the frequency of texts’ coded is paramount, careful consideration is taken where unsuitable texts/words are not coded. Therefore, the amount of suitable texts/ words that is being coded for certain nodes will reflect their final percentage (Figure 4). As shown in Figure 4, three nodes of technical competency have more than 5% of words coded (i.e. coverage), namely site management, construction administration, and construction contract, which indirectly highlight the focus of TCCM. Meanwhile, the rest of nodes were recorded having less than 5% of coverage. Afterwards, the predetermined nodes from the TCCM will become a baseline for the successive coding exercises, and their coding frequency will be corroborated with another document’s coding frequency.

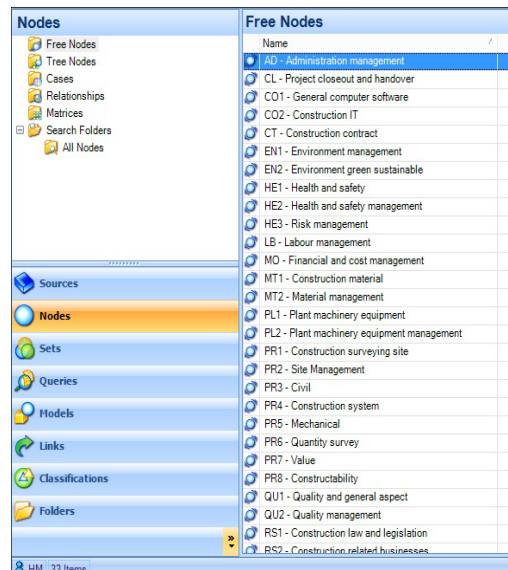


Figure 3. Snapshot of TCCM nodes created into NVivo



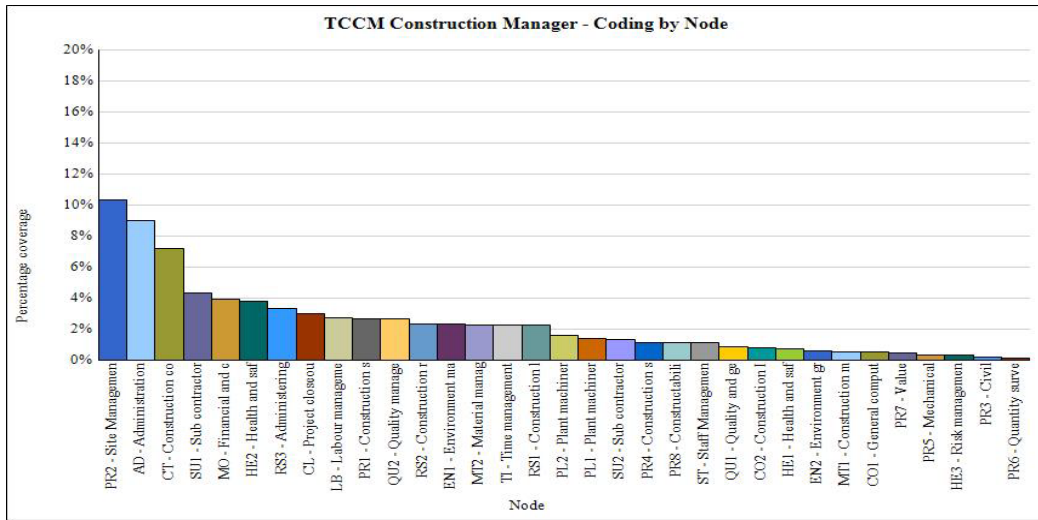


Figure 4. Percentage coverage of TCCM for each node

**Data Collection and Analysis: Step 2 - Evaluating other competency documents**

First and foremost, the particular documents must be from Malaysia. It is in accordance with the nature of the TCCM which is based on the environment. Then, provisions within the realm of construction project management were taken into account, such as education (e.g. diploma, bachelor degree, CPD, etc.). This is important to show how different levels of education or training influence TCMM.

The next process was to evaluate the

document. Unfortunately, based on an understanding, some of these documents were considered private and treated as organisations’ undisclosed document. Therefore, the research relied on the positive response from the potential organisations through formal acquirements (e.g. formal letters, formal visits, etc.). Fortunately, several organisations responded positively and provided their competency documents for educational purposes, which (most of them) in return insisted on having the final findings. A total of four organisations provided their documents: Organisation

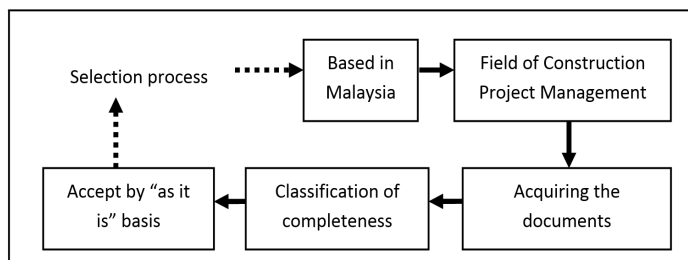


Figure 5. Selection process for other competency documents

A, Organisation B, Organisation C, and Organisation D (names changed). The following table (Table 1) shows their details along with the levels of learnings and the name of the courses.

After that, all documents were categorised according to their completeness. It was observed that only documents from Organisation B and Organisation C were highly comprehensive since differentiation of knowledge and skills was clearly stated (as key elements for competency).

Additionally, two documents with similar learning level from Organisation C were taken into account to improve analysis (i.e. Manager (Architectural & Building) and Manager (Civil & Structure)). However, the rest of the documents (which are moderately comprehensive) were still considered in the analysis in order to ensure manifest incongruity and corroborate the test findings. Subsequently, all documents were accepted “as it is” basis without any modifications to preserve their original information.

Table 1  
*List of participation details*

Organisation	Types of Organisation	Level of Learning	Name of Course
A	Vocational institution	Diploma	Construction Manager
B	Construction institution	Continuous Professional Development (CPD)	Project Manager
C	Skills institution	Certification Level 4	Manager (Architectural & Building)
C	Skills institution	Certification Level 4	Manager (Civil & Structure)
D	Higher learning institution	Bachelor Degree	Construction Technology Manager

**Data Collection and Analysis: Step 3 - Screening and coding exercises for other competency documents**

First, counterpart documents were imported into NVivo in either MS Word or PDF format. It became the internal sources in NVivo and visually screened for their completeness. After that, coding exercises were conducted for each document in sequence by considering all texts and focusing on their technical knowledge and skills. Guided by the predetermined nodes from the TCCM, texts in each document was coded into respective TCCM nodes.

The previous coding details of TCCM document were referred to extensively to help and support the new documents’ coding activities. Therefore, coding was undertaken for texts that match TCCM’s coding details underneath the particular TCCM’s nodes.

**Data Collection and Analysis: Step 4 - Quality measures**

As part of ensuring quality and in order to have clean and concise codes, redundant and unsuitable texts which do not

contribute to meaningful interpretation for each predetermined node was discarded (Research Support Group, Social Science Research Lab, 2011). The move was partly to preserve the latent values within the documents (Cho & Lee, 2014). Each code in every node for all documents was inspected carefully before subsequent analysing processes. At the end of this step, interrater reliability assessment was conducted to identify the reliability of inner coding processes that is either two or more coder will code in a consistent manner (Gwet, 2008; Graham, Milanowski & Miller, 2012; Hallgren, 2012). It is a crucial evaluation in order to verify the reproducibility of coding through previously identified coding steps (Figure 2). Therefore, based on the works of Iacobucci (2001), Gwet (2008), Graham et al. (2012), Freelon (2010), and Hallgren (2012), the research selected a second coder. A senior lecturer in construction was appointed and recruited as a judge's coder. The judge was briefed, familiarised with coding steps towards one document (i.e. Organisation A: Construction Manager) as a sample. The results were in the form of nominal coding presence (i.e. 1 for Yes and 0 for No) in all predetermined nodes

between the two coders (i.e. the authors and the judge's coder) (Table 2).

Given the fact that the two coders worked on a single unit of analysis (i.e. coding presence for 33 variables), a classic percentage agreement and Cohen's Kappa were calculated. Percentage agreement between the two coders is defined as consensus estimates towards nominal data to evaluate the agreement of construct's interpretation (Stemler, 2004; Graham, 2012; Freelon, 2010). Meanwhile, Cohen's Kappa is more computationally robust due to the inclusion of mathematical improvements for chance agreement between coders (Freelon, 2010; Stemler, 2004; Iacobucci, 2001; Gwet, 2008; Graham, 2012). The analysis was conducted by using web-based software supplied by Freelon (2010) and was benchmarked through the rule of thumb (Table 3) set by Graham. (2012). The result (Table 4) shows that both interrater reliability assessments surpassed the benchmark. Therefore, it is evident that the coding steps in the research are somewhat reproducible, and thus, the piloted interrater reliability assessment is sufficient without having to assess all documents (Stemler, 2004).

Table 2

*Results for coding presence of two coders for Organisation A: Construction Manager*

TCCM's nodes	The authors	The judge's coder
1 : AD - Administration management	Yes	Yes
2 : CL - Project closeout and handover	Yes	Yes
3 : CO1 - General computer software	No	No
4 : CO2 - Construction IT	No	No

Table 2 (continue)

TCCM's nodes	The authors	The judge's coder
5 : CT - Construction contract	Yes	Yes
6 : EN1 - Environment management	Yes	Yes
7 : EN2 - Environment green sustainable	No	No
8 : HE1 - Health and safety	Yes	Yes
9 : HE2 - Health and safety management	Yes	Yes
10 : HE3 - Risk management	No	No
11 : LB - Labour management	Yes	Yes
12 : MO - Financial and cost management	Yes	Yes
13 : MT1 - Construction material	Yes	Yes
14 : MT2 - Material management	Yes	Yes
15 : PL1 - Plant machinery equipment	Yes	Yes
16 : PL2 - Plant machinery equipment management	Yes	Yes
17 : PR1 - Construction surveying site	Yes	Yes
18 : PR2 - Site Management	Yes	Yes
19 : PR3 – Civil	Yes	Yes
20 : PR4 - Construction system	No	Yes
21 : PR5 – Mechanical	No	No
22 : PR6 - Quantity survey	No	No
23 : PR7 – Value	No	No
24 : PR8 - Constructability	No	No
25 : QU1 - Quality and general aspect	Yes	Yes
26 : QU2 - Quality management	No	Yes
27 : RS1 - Construction law and legislation	No	No
28 : RS2 - Construction related businesses	No	No
29 : RS3 - Administering and assisting	Yes	Yes
30 : ST - Staff Management	Yes	Yes
31 : SU1 - Sub contractor management	Yes	No
32 : SU2 - Sub contractor tendering and bidding	No	No
33 : TI - Time management	Yes	Yes

Table 3

*Rule of thumb for interpreting interrater result (Graham, Milanowski, & Miller, 2012)*

Interrater agreement methods	Interpretation of results	
	High	Minimum
Percentage agreement	90%	75%
Cohen's Kappa	.81	.61

Table 4

*Results from interrater reliability assessment*

Assessment	Percent Agreement	Cohen's Kappa	N Agreements	N Disagreements	N Cases	N Decisions
Coders (the authors & the judge's coder)	90.91	0.81	30	3	33	66

**Data Collection and Analysis: Step 5 - NVivo analysis and extractions**

The last step is analyses the findings. Since the research’s objective is to analyse the corroboration level of TCCM towards several competency documents, predetermined nodes from the TCCM becomes the yardstick. The study divides the analysis into several stages (as permitted by NVivo), namely the existence of codes and frequency of words in every node, and the percentage of codes for all nodes (with graphical presentation). The entire analysis was presented in MS Excel format. In Step 1 and Step 3, coding exercises had been undertaken vis a vis TCCM and five (5) other documents respectively. Given that TCCM’s nodes encapsulated the coding activities, it is no surprise that TCCM recorded overall existence in the entire nodes (Table 5). On the other hand, dichotomously represented by “Yes” and “No”, a clear discrepancy can be seen. Aside from the TCCM, none of the documents scored “Yes” for the entire node, where the closest is Org. B: Project Manager (for 29 nodes) and the least is 20 nodes which belong to Org. A: Construction Manager. Meanwhile, both Org. C documents scored similar frequency

of existence (with 26 nodes) but with dissimilar coding frequencies on nodes.

The frequency of words coded for any node signifies its emphasis in a particular document. More words coded for a single node would literally mean more information is available that focus on a particular competency in a document (in this case, a node). For instance, in TCCM, more information for technical competency requirement is observed for Preconstruction – Site Management (PR2). Thus, it is expected that frequency of words coded for PR2 is higher than the other nodes. A complete listing of frequency of words coded for each node can be found in Table 5, where darker blue indicates higher frequency while lighter blue otherwise. As a preliminary observation, Org. A: Construction Manager is concentrated on Civil (PR3), while Org. B: Project Manager on Contract (CT) and Financial and Cost (MO). On the other hand, TCCM’s Construction Manager is focused on Administration (AD) and Site Management (PR2), whereas Org. C1: Manager A&B on Administration (AD) and Contract (CT). Its sibling, Org. C2: Manager C&S focuses on Construction Survey (PR1), Site Management (PR2), and Civil (PR3).

Table 5

*Existence of code(s) and frequency of words coded in every nodes*

Nodes	Documents												
	Org. A: Construction Manager	Org. B: Project Manager	TCCM Construction Manager	Org. C1: Manager A&B	Org. C2: Manager C&S	Org. D: Construction Technology Manager							
1 : AD	Yes	7	Yes	100	Yes	145	Yes	67	Yes	57	Yes	33	
2 : CL	Yes	5	Yes	91	Yes	49	Yes	17	Yes	19	No	0	
3 : CO1	No	0	No	0	Yes	10	Yes	5	Yes	2	Yes	8	
4 : CO2	No	0	Yes	43	Yes	11	Yes	3	No	0	Yes	54	
5 : CT	Yes	7	Yes	180	Yes	119	Yes	57	Yes	40	Yes	41	
6 : EN1	Yes	6	Yes	78	Yes	43	Yes	13	Yes	6	Yes	20	
7 : EN2	No	0	Yes	2	Yes	10	No	0	No	0	Yes	4	
8 : HE1	Yes	6	Yes	36	Yes	12	Yes	8	Yes	15	Yes	12	
9 : HE2	Yes	6	Yes	75	Yes	71	Yes	28	Yes	14	No	0	
10 : HE3	No	0	Yes	55	Yes	5	Yes	4	No	0	Yes	16	
11 : LB	Yes	15	Yes	81	Yes	45	Yes	9	Yes	45	Yes	14	
12 : MO	Yes	15	Yes	159	Yes	73	Yes	18	Yes	39	Yes	59	
13 : MT1	Yes	7	No	0	Yes	10	Yes	23	Yes	1	Yes	22	
14 : MT2	Yes	7	Yes	5	Yes	33	Yes	8	Yes	38	Yes	20	
15 : PL1	Yes	8	No	0	Yes	20	No	0	Yes	12	Yes	13	
16 : PL2	Yes	8	Yes	2	Yes	29	No	0	Yes	40	Yes	14	
17 : PR1	Yes	12	Yes	13	Yes	44	Yes	4	Yes	70	Yes	48	
18 : PR2	Yes	17	Yes	107	Yes	171	Yes	32	Yes	63	Yes	44	
19 : PR3	Yes	148	Yes	4	Yes	4	No	0	Yes	62	Yes	66	
20 : PR4	No	0	Yes	26	Yes	16	Yes	6	Yes	26	Yes	29	
21 : PR5	No	0	No	0	Yes	6	No	0	No	0	No	0	
22 : PR6	No	0	Yes	14	Yes	2	Yes	3	Yes	4	No	0	
23 : PR7	No	0	Yes	13	Yes	8	No	0	No	0	No	0	
24 : PR8	No	0	Yes	5	Yes	17	No	0	No	0	No	0	
25 : QU1	Yes	6	Yes	38	Yes	14	Yes	4	Yes	9	No	0	
26 : QU2	No	0	Yes	47	Yes	52	Yes	16	Yes	24	No	0	
27 : RS1	No	0	Yes	75	Yes	39	Yes	15	Yes	32	Yes	38	
28 : RS2	No	0	Yes	40	Yes	40	Yes	2	Yes	9	Yes	63	
29 : RS3	Yes	3	Yes	64	Yes	64	Yes	11	Yes	21	No	0	
30 : ST	Yes	15	Yes	65	Yes	17	Yes	9	Yes	44	Yes	14	
31 : SU1	Yes	8	Yes	10	Yes	69	Yes	16	Yes	23	No	0	
32 : SU2	No	0	Yes	22	Yes	24	Yes	28	No	0	No	0	
33 : TI	Yes	9	Yes	39	Yes	39	Yes	13	Yes	12	No	0	
<b>Frequency of "Yes" out of 33 nodes</b>	<b>20</b>	<b>29</b>	<b>33</b>	<b>26</b>	<b>26</b>	<b>21</b>							
<b>Frequency of words coded</b>	<b>315</b>	<b>1489</b>	<b>1311</b>	<b>419</b>	<b>727</b>	<b>632</b>							

Last but not least, Construction IT (CO2), Financial & Cost (MO), Civil (PR3), and Construction Businesses (RS2) are central for Org. D: Construction Technology Manager. Meanwhile, the highest total frequency of words coded is dominated by Org. B: Project Manager (1489 nos.), followed by TCCM's Construction Manager (1311 nos.). The least is Org. A: Construction Manager with only 315 nos.

Figure 6 shows the majority of the documents recorded different percentages on each node. However, the percentage for most of the nodes were concentrated within 0% to 10% (Figure 6). Only a handful of codes fell within 10% to 20%. However, an obvious outlier can be spotted under column number 1, which is from Org. A: Construction Manager for Civil (node: PR3). Recording 46.98%, it is the highest percentage among other codes' percentage for any given documents. On the other hand, when every percentage in each node

was accumulated horizontally (by row) where its focus was on predetermined nodes, corroboration with TCCM can be made. Figure 7 highlights disparities. As the TCCM was the point of reference (through the black line), the only prominent document that frequently exceeded the TCCM (in term of nodes' percentage) is Org. B: Project Manager. Meanwhile, the rest of the documents generally showed lower percentages, with only a minority of nodes marginally surpassed TCCM's for several specific documents. Table 6 shows the accumulated percentages of horizontal nodes (each row of nodes' total percentage is 100%). It represents only the highest percentage of achievers for each node across all documents, where columns illustrate specific document's focus and total achievement for highest percentage. Org. B and TCCM show similar focus, albeit Org. B have an upper hand in the area of Safety and Health (i.e. HE1, HE2,

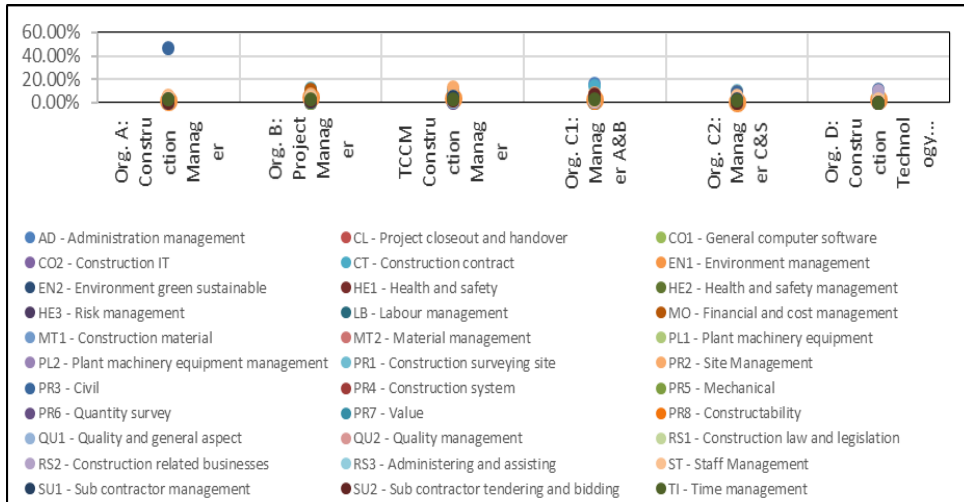


Figure 6. Vertical percentage intensities of codes on each node for every document

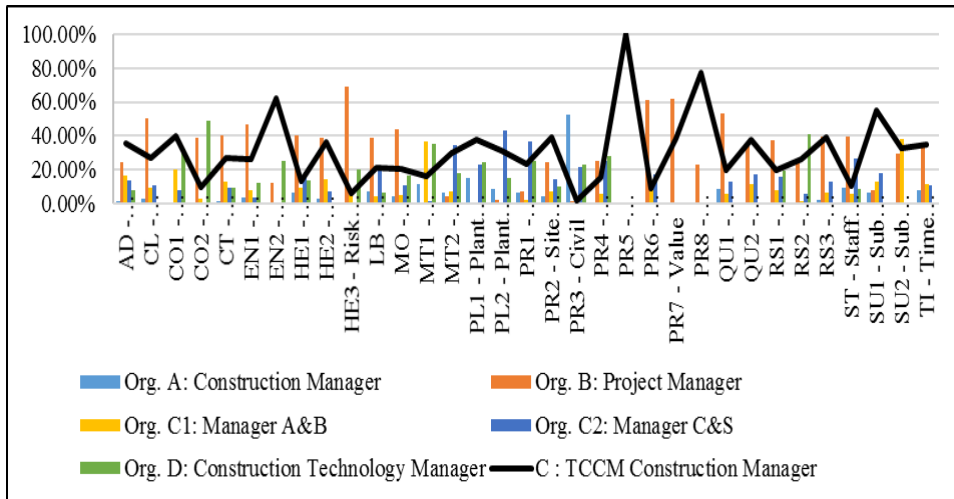


Figure 7. Horizontal percentage of each node for different document (benchmarking TCCM)

& HE3). Meanwhile, documents from Org. C and Org. D show focus in less than four nodes. The least is a document from Org. A, which exhibits the highest focus on a single node (i.e. PR3: Civil). On the other hand, a total achievement of 15 nodes from

Org. B: Project Manager has taken the lead and followed closely by the TCCM. Other documents have no more than three nodes with different priorities of technical competency.

Table 6

Highest percentage achievers for each node

Nodes	Documents					
	Org. A: Construction Manager	Org. B: Project Manager	TCCM Construction Manager	Org. C1: Manager A&B	Org. C2: Manager C&S	Org. D: Construction Technology Manager
1 : AD			35.45%			
2 : CL		50.28%				
3 : CO1			40%			
4 : CO2						48.65%
5 : CT		40.54%				
6 : EN1		46.99%				
7 : EN2			62.50%			
8 : HE1		40.45%				
9 : HE2		38.66%				
10 : HE3		68.75%				



Table 6 (continue)

<b>Documents</b>						
	Org. A: Construction Manager	Org. B: Project Manager	TCCM Construction Manager	Org. C1: Manager A&B	Org. C2: Manager C&S	Org. D: Construction Technology Manager
<b>Nodes</b>						
11 : LB		38.76%				
12 : MO		43.80%				
13 : MT1				36.51%		
14 : MT2					34.23%	
15 : PL1			37.74%			
16 : PL2					43.01%	
17 : PR1					36.65%	
18 : PR2			39.40%			
19 : PR3	52.11%					
20 : PR4						28.16%
21 : PR5			100%			
22 : PR6		60.87%				
23 : PR7		61.90%				
24 : PR8			77.27%			
25 : QU1		53.52%				
26 : QU2			37.41%			
27 : RS1		37.69%				
28 : RS2						40.91%
29 : RS3		39.26%	39.26%			
30 : ST		39.63%				
31 : SU1			54.76%			
32 : SU2				37.84%		
33 : TI		34.82%	34.82%			
<b>Total achievement for highest percentage</b>	<b>1</b>	<b>15</b>	<b>11</b>	<b>2</b>	<b>3</b>	<b>3</b>

**CONCLUSION AND WAY FORWARD**

The TCCM has been verified using several technical competencies obtained from construction companies. Documents pertaining to the competency with different levels of learning were analysed against the authors' TCCM (Table 1). Step 1

shows that Item PR2 (Site Management) had the highest concentration in TCCM (Figure 4), with slightly above than 10% of coverage. This circumstance is not unusual given that most of the activities in the construction sector take place at the construction site (Yaman et al., 2015;

Mohammad, 2016a). The rest of the items recorded lower than 10% coverage). In the second step, other competency documents from local organisations were obtained (Table 1). Although it showed different levels of learning, and some of it was not dedicated to construction manager's technical competency, they were regarded as valuable to the present research showing deeper appreciation of the issue being discussed. Subsequently, coding exercises relating to those documents were undertaken (as in Step 3). Step 4 shows the importance of quality undertaking to be embedded into the process. Interrater reliability assessments were conducted, which eventually gave satisfactory results (Table 4). Finally, the analysis concluded with Step 5 which outlined the corroborative result of TCCM against its counterparts. Detailed results are shown in Step 5.

Gaps can be found across other organisations' competency documents (Table 5). Some of the documents showed quite significant gaps especially for Org. A: Construction Manager and Org. D: Construction Technology Manager. Additionally, the frequency of "Yes" was detached from the frequency of words coded. For example, although TCCM reported the highest number of "Yes", their recorded number of words coded was less than Org B: Project Manager. The same goes for several other documents. Furthermore, throughout the particular subchapters (i.e. Step 5), a series of percentage analysis showed differences in gaps. In Figure 5, an obvious outlier can be seen for Org A:

Construction Manager, specifically for civil engineering area. As opposed to the rest of documents, average intensities were recorded at lower than 20%. Meanwhile, as corroboration is concerned, Figure 6 visualised fluctuation of percentages which further emphasised each document's focus in Table 6. In a nutshell, the test concluded that the TCCM exceeded almost all other technical competencies, except for Org. B: Project Manager's competency, where frequent gaps can be observed on TCCM as shown Figure 7 and Table 6.

As a context, levels of learning and courses played a role. For Diploma and Certification (Level 4), lower percentages of words coded were reported. It was perhaps due to the learning time frame which was translated into lesser words in their respective documents. Document completeness was conceivably transcended through Org. D: Construction Technology Manager. A Bachelor's Degree would take a considerably longer learning time frame, thus comprehensive competency document was expected. On the other hand, a document from Org. B: Project Manager scored much higher percentage among its counterparts. However, the authors agreed that the circumstance was fairly due to the scope of works on behalf of the Project Manager, where basically their involvement in construction project started earlier than the Construction Manager. Finally, the authors noted several documents such as from Org. A and Org. C showed little connection between their title and content.

As a conclusion, it is evident that TCCM corroborates positively with the research samples. This research filled the gap in literature on this topic. Nevertheless, the authors emphasise that overall results need to be further validated by industry and academic experts in order to appreciate its values and possible contribution to the Malaysian construction industry.

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Revised: June 2016

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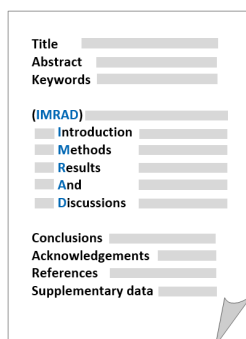


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