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& HUMANITIES**

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A special edition devoted to
Contemporary Issues in Management & Social Sciences

Guest Editors
Kashan Pirzada, Danture Wickramasinghe & Gabriel Moens



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Journal of Social Sciences & Humanities

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

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



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ABSTRACTING/INDEXING

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Preface

It is a great honour to publish this special issue with *Pertanika Journal of Social Sciences & Humanities (JSSH)*. The papers included in this special issue are based on oral presentations made at the 2nd and 3rd Global Conference on Business and Social Sciences (GCBSS), which took place in Bali, Indonesia and Kuala Lumpur, Malaysia.

The conference was organised by the Global Academy of Training & Research (GATR) in collaboration with the National and International Universities and Publishers such as Elsevier (UK), Inderscience (Switzerland), Kalasalingam University, (India), MBRSG (UAE) and University of Brawijaya (Indonesia). The aim of the GCBSS Series is to provide a collegial environment for scholars, researchers, academics and practitioners to discuss and present their research and to advance the areas, covered by the conference, through dissemination of research. The GCBSS series has been organised since 2013 and they continue to be offered in several countries such as Malaysia, Indonesia, Sri Lanka and UAE. Future conferences will be held in Australia, the United Kingdom and Singapore, among other countries. The organisational structure of GCBSS has attracted strong support from various academics with high requisite expertise in the different disciplines of Business, Accounting, Law and Social Sciences.

The 2nd and 3rd Global Conference on Business and Social Sciences attracted considerable interest, with 497 intellectually stimulating papers from several countries presented. The papers were on accounting, banking, finance, law, management, marketing, economics, education, law, psychology, political science, communication and culture, leadership, tourism and hospitality, public and government services and societal issues in general. After reasonable care, the committee selected 17 high quality papers for inclusion in *Pertanika JSSH*, which focusses on research outcomes. In addition, more than 250 papers were published in the Elsevier *Procedia of Social & Behavioral Sciences*.

The Conference also provided an opportunity to welcome prominent plenary speakers: Professor Dr Danture Wickramasinghe, University of Glasgow, United Kingdom; Professor Dr Gabriël A Moens, Curtin University, Australia; and Professor Dr Kamran Ahmed, La Trobe Business School, Australia. We are grateful to them for their invaluable contribution.

We also extend our special thanks to Dr Nayan Kanwal, the Chief Executive Editor and his dedicated *Pertanika* team at the Journal Division for their generous guidance and commitment in bringing this special issue to print. This issue would not have been possible without their concerted effort.

Finally, our thanks to all the reviewers, the members of the GCBSS International Scientific Committee, session chairs, delegates and especially the members of the Organising Committee. We would like to thank all those who made their contributions to ensure the success of the conference.

Guest Editors

Kashan Pirzada* (*Chairman, Advisory Board of Global Academy of Training & Research, Malaysia*)
Danture Wickramasinghe (*Adam Smith Business School, University of Glasgow, United Kingdom*)
Gabriel Moens (*Curtin University, Australia*)

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The Implementation of Indonesia's Three Principles of Higher Education Standard towards Increasing Competitiveness of Local Universities for ASEAN Economic Community

Siregar, Z.^{1*}, Lumbanraja, P.² and Salim, S. R. A.²

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ABSTRACT

This research examined the effectiveness of the implementation of Indonesia's three principles of Higher Education known as Tri Dharma Perguruan Tinggi comprising education and teaching, research and community service provided by the universities. More specifically, this research investigated the influences of leadership, strategic planning and human resources on the effectiveness of the implementation Tri Dharma Perguruan Tinggi as the standard setting in measuring Indonesian universities' performances. It is underlined that strong leadership, well-strategic planning and qualified human resources are essential for universities in providing quality education and teaching, research and community services. A sample consisting of 570 lecturers working and holding managerial position at universities in the Province of Sumatera Utara, Indonesia, were selected. Results of data analyses using partial least square (PLS) suggested that leadership, strategic planning and human resources influence the effective implementation of Tri Dharma Perguruan Tinggi. Meanwhile, the effective human resources serves as the pivotal driver that is needed for creating universities' competitiveness. Accordingly, an effective leadership determines the outcome of strategic planning required for achieving excellence competitiveness of the universities.

Keywords: Leadership; Strategic Planning; Human Resources; Three Principles of Higher Education

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INTRODUCTION

This year, Indonesia has participated in ASEAN Economic Community. It is of urgency that Indonesia be ready to face this

challenge. This is due to the fact that foreign products and labours have freely entered the Indonesian market. Indonesia, especially the North Sumatra region, is one of the closest international gates to the neighbouring countries such as Thailand, Singapore, and Malaysia. Therefore, it is necessary to equip Indonesian human resources with high capability and competitiveness qualities. In order to achieve this goal, both the government and the country's higher education should cooperatively play their roles to produce skilful human resources and competitive industries in Indonesia.

This is pursuant to the mandate of the Regulations of Republic Indonesia No. 12, year 2012, which states that the Three Principles of Higher Education are the obligation of universities to conduct education and teaching, research and community service. Based on this government's regulation, higher education institutions in Indonesia, especially in North Sumatra, are expected to have higher competitiveness in the labour market. The application of the Three Principles of Higher Education in North Sumatran universities is projected to improve their sustainable competitiveness based on Value, Rarity, Imitability and Organization (Barney, 1991). In addition, Bobe (2012) states that the three competencies in higher education include the activities of teaching, research and community service. In order to create sustainably competitive universities, the concept framework implemented in Barney's

work (2006, p. 129) needs to be reviewed. It suggests a form of heterogeneous relationships among resources: immobility: value, rarity, imitability and organisation towards sustainable competitiveness that can be summarised into a framework implemented in analysing any potential resources in company that lead to the ultimate sustainably competitive resources. A good university is capable of providing values to meet the needs of any industry to satisfy customers through their teaching and learning processes, applicative research for industrial needs, as well as applicative and practical research for community service.

Universities have to be able to conduct the Three Principles of Higher Education. In order to implement the three concepts in the universities, leadership and strategic planning are of necessity. Messah and Mucai (2011) explained some factors influencing the implementation of strategic management planning by its ruler such as the influence of managerial behaviour, appraisal management, resource allocation practices and institutional policy management. Leadership plays a major role in determining the quality of institutional resources in order to implement the three principles. Huang and Lee (2012) pointed out that human resource factors (including the lecturer's quality), process strength, organisational policy and curriculum are significant towards the development of competitive value in higher education institutions in Taiwan. In line with the previous statement,

Pesic et al. (2012) suggested that the VRIO (Value, Rarity, Imitability and Organisation) framework enables a wider opportunity for the institution manager to evaluate all activities conducted within Human Resource (HR) division. VRIO developed by Barney is based on Resource Based View (RBV) theory covering the principles of Value, Rarity, Imitability and Organisation (VRIO). Therefore, the VRIO framework may inspire the implementation of the Three Principles of Higher Education.

The impacts of effective human resources, leadership and strategic planning on organisation's competitiveness have gained significant interests from several scholars. Some of them have highlighted the interconnection among human resources, leadership and strategic planning (see for example, Fairholm, 2009; Messah & Mucai, 2009; Bobe, 2012; Pessic, 2012; Anstine, 2013; Kipto & Mwingi, 2014) highlighting direct and indirect relationships of effective human resources, leadership and strategic planning with organizational competitiveness. However, to the best authors' knowledge, there is little systematic research that has analysed the link between effective implementation of these three important aspects towards the creation of excellence competitiveness in higher-education organisation. This paper aims to investigate the effects of direct and indirect influences among effective human resources, leadership, strategic planning and universities' competitiveness reflected on

Barney's RBV framework (1991) at public and private universities in the province of North Sumatera. As the third largest province in the Republic of Indonesia, the North Sumatera Province has been set as the main gate of the nation to showcase the country for the international market. In particular, given the fact that ASEAN will soon implement the ASEAN Economic Community at the opening of 2016, the importance of having quality higher-educational services in Indonesia is pivotal in preparing the country to play a more active role in the region.

LEADERSHIP AND ITS CORRELATION WITH STRATEGIC PLANNING

Universities have to implement the three Principles of Higher Education. In order to implement the three principles, leadership and strategic planning are unavoidably vital. Messah and Mucai (2011) explained some factors influencing the implementation of strategic management planning such as managerial behaviour, appraisal management, resource allocation practices and institutional policy management. Morgan (2011) argued that in order to create a success in a complex environment, a leader should set interest priority to make sure that the relationship between the leader and strategic planning is based on the true leadership role and its responsibility to build up the basic strategic acts, as well as employ strategy as a form of plans to work. In

addition, Kipto and Mwingi (2014) asserted that leadership in an organisation is the key to a success where a leader should be able to achieve company's vision, mission and organisational objectives. The failure in leadership will affect the success of strategic planning. Fairholm (2009) claimed that leadership is a matter of planning that leads to specified managerial tasks. Hinton (2012) projects that leadership has to be crystal clear in terms of its process planning where a reliable leader in the planning stage will strengthen the institution commitment for that particular process.

Hypothesis 1: Leadership Influences Strategic Planning.

LEADERSHIP CORRELATES WITH HUMAN RESOURCES

The role of leadership role in higher education is crucial. A leader must be able to manage the existing human resources. The human resource management should reflect the Value, Rarity, Imitability and Organisation (VRIO) framework. Pesic (2012), based on the results of his study, claimed that a good leadership may produce valuable, rare and imitable human resource. Dunford, Snell, and Wright (2001) acknowledged that human resource management system would develop value and change towards intellectual/knowledge capital, shaping the core competence. Messah and Musai (2011) believe that poor managerial act in resource allocation significantly influences on the

implementation of strategic planning as it encompasses a key determining power for decision making in an institution. Terziovski (1999) explained that leadership category, human resource management and customer focus are significant predictors of a strong operational performance.

Hypothesis 2: Leadership Influences Human Resource.

STRATEGIC PLANNING WITH THREE PRINCIPLES OF HIGHER EDUCATION

In strategic planning, the implementation of the three Principles of Higher Education in universities is significant. Through cautious planning, activities such as teaching and learning, research and community service can be comprehensively conducted. Furthermore, the implementation of research results in the teaching and learning processes is necessary due to the need to develop and improve applicative learning. Kettunen (2011) observed that from the results of curriculum implementation, a betterment needs to be done for research based education and development in order to arrive at 'act' phase. OECD (2010) underlines that leadership in executive level is one of the determining factors. Active participation of faculty deans is also important because they are the key persons in decision making. They may create strategic approach, build and support community service, and maintain innovation in daily classroom practices. Bobe (2012)

suggests that leaders are to understand their institution's research capability, learning process and teaching and learning processes in their particular department.

Hypothesis 3: Strategic Planning Influences the Three Principles of Higher Education.

HUMAN RESOURCE AND THE THREE PRINCIPLES OF HIGHER EDUCATION

Higher Education institutions have potential Human Resources (Lecturers) that have to be able to properly implement the three higher education principles. Nowadays, a university's reputation and ranking are influenced by its research publication. According to Anstine (2013), the amount of journal publication and the research frequency conducted by lecturers affect greatly towards university ranking. Prasetianingrum, (2009) underlined particular issue indicating that for an educational institution, research is the main product from teaching and learning processes delivered from the lecturer to the students. The development of lecturers' knowledge can be observed by the amount of their published research. In addition, their ability to transfer knowledge to serve the community is a must. Accordingly, the lecturer has the important role at the university level needed to support the successfulness of the implementation of the three principles of higher education (Hidayat, 2008).

Bobe (2012) claimed that the basic competences comprise the activities of

teaching, research and community service. Power and McDougall (2005) identified five competences deemed to achieve competitiveness, namely, transferring technology from university to industry (measured by the number of company-industry having agreement and cooperation with the university); the income from Research and Development; faculty quality (measured by the amount of the lecturers' name being cited or quoted by other researchers); and the patents received by the university (Bobe, 2012).

Hypothesis 4: Human Resources Influence the Three Principles of Higher Education.

RESEARCH METHODOLOGY

This study was conducted in North Sumatera Province. The respondents were universities in that province. Based on data by the Directorate General of Higher Education, there are 35 private universities and 2 state universities in the province. This study applied questionnaires as the data collection instrument. The study respondents were all the functionaries comprising the 37 universities. The total sum of the respondents was 1,870 people. The respondents were asked to rate the questions in the Questionnaire on a five-point Likert scale (Ranging from 1 = Never and 5 = Always). According to Hair et al. (2010, p. 662), the bigger the sample in a study, the more stable the data will be. The total of the returned or answered questionnaires was 570. This study used Partial Least Square (PLS).

STUDY RESULTS

In order to observe the results of this study, there is a need to pay attention to Average

Variance Extracted (AVE), Composite Reliability, Cronbach Alpha, and Loading Factor in the application of PLS as stated by Hair et al. (2010).

Table 1
Composite Reliability, R Square, AVE and Cronbach Alpha

Construct	Composite Reliability	R Square	AVE	Cronbach Alpha
Leadership	0.950506		0.553121	0.957033
Strategic Planning	0.960988	0.756865	0.557363	0.910728
Human Resources	0.926045	0.816630	0.547390	0.943977
Three Principles in Higher Education	0.954057	0.821771	0.538102	0.948480

Evaluation of Research Model Structure

Based on the data in Table 1 above, AVE was above 0.5. According to Hair et al. (2010, p. 709), if the AVE score is above 0.5, the model is stated as good. Furthermore, the Cronbach Alpha and Composite Reliability were above 0.7. These mean that the tool is very high in reliability. The R Square

in model is above 70%, which could be interpreted as this variable giving significant influence on the implementation of the three Principles of Higher Education as much as 0.821771 or 82.18%.

Structural Model Results towards Hypothesis

To observe whether the hypotheses were accepted or rejected, the measurement of

Table 2
Path Coefficients (Mean, STDEV, T-Values)

Construct	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STERR)
Human Resources -> Three Principles In Higher Education	0.419872	0.420476	0.040025	0.957033
Leadership -> Human Resources	0.903676	0.902770	0.014042	0.910728
Leadership -> Strategic Planning	0.869980	0.870048	0.015552	0.943977
Strategic Planning -> Three Principles In Higher Education	0.520847	0.521689	0.036390	0.948480

hypotheses significance utilised T-statistics and T-table scores. If T-statistics score is

higher than T-table, the proposed hypothesis is accepted. In addition, if the T-statistic is (>1.96), the hypothesis can also be accepted. Table 2

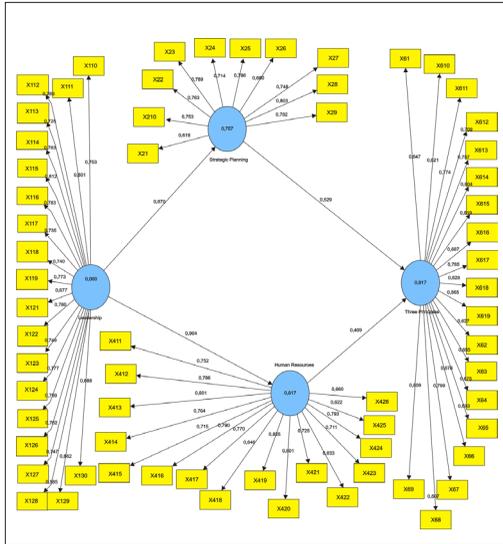


Figure 1. Evaluation Result of Structural Model

Based on the hypotheses in this data in Table 2 above, study are accepted. the T-statistic score The analysis for each variable is results in the form higher than 1.96, and of presented in the thus all the proposed following Figure 1.

As can be seen in Table 3, all measures are valid and reliable. All loaded factors are above the recommended threshold, ranging from 0.595 to 0.904. The statistical path coefficients and their level of significance indicated that H1, H2, H3 and H4 are supported in all the models. The path analysis results also proposed that effective

Table 3
Outer Model (Weights or Loadings)

Leadership		Strategic Planning		Human Resources		Three Principles	
X11	0,753	X21	0,618	X311	0,752	X41	0,647
X12	0,801	X22	0,753	X312	0,786	X42	0,627
X13	0,783	X23	0,763	X313	0,801	X43	0,655
X14	0,812	X24	0,789	X314	0,764	X44	0,675
X15	0,783	X25	0,714	X315	0,755	X45	0,653
X16	0,735	X26	0,796	X316	0,79	X46	0,678
X17	0,74	X27	0,68	X317	0,77	X47	0,799
X18	0,773	X28	0,803	X318	0,646	X48	0,807
X19	0,78	X29	0,782	X319	0,825	X49	0,809
X120	0,749			X320	0,804	X410	0,82
X121	0,777			X321	0,725	X411	0,774
X122	0,758			X322	0,633	X412	0,709
X123	0,702			X323	0,711	X413	0,757
X124	0,747			X324	0,7393	X414	0,804
X125	0,585			X325	0,622	X415	0,81
X126	0,662			X326	0,66	X416	0,687
X127	0,688					X417	0,785
						X418	0,828
						X419	0,565

human resources are the pivotal drivers to the creation of universities' competitiveness, while an effective leadership is needed towards developing the best strategic planning for further improving universities excellence competitiveness.

Leadership → Strategic Planning.

From the previously conducted analysis on the influence of leadership towards strategic planning, the results showed that the parameter coefficient was 0.869980 and t-statistic was as big as 55.939578 (t-statistic score > 2.0). If the t-statistic score is above 2.0, the relationship between the two variables is significant, whereas the coefficient score of 0.869980 suggests some positive influences between the two variables. This study supports another research by Herlambang et al. (2013) which claims that leadership and strategic planning may influence higher education organisational performance. Furthermore, this study is in line with Kipto and Mwig (2014) who stated that leadership in an organisation is the underlying factor to determine success where leadership has to be able to regulate and achieve company's vision, mission and objectives. In addition, this study agrees with Hinton (2012) who has pinpointed that leadership should be clear in terms of planning process in which the leader will strengthen the institutional commitment for that particular process. Thoyib (2005) argues that leadership style implemented by a leader affects the decided strategy and employees' performances.

Leadership → Human Resources. In the case of the influence of leadership towards human resources, the study results showed that the parameter coefficient was 0.903676 and the t-statistic score was 64.354422 (t-statistic score > 2.0). The t-statistic score is above 2.00, showing that the correlation between the two variables is significant; whereas the coefficient score of 0.903676 suggests the positive influence between the two variables. This finding required that a leader has to have the capability to manage human resource available within his/her university. The existing human resource in an institution is a powerful asset to produce graduates with high competitiveness. The finding matches Narimawati's (2008) suggestion that a lecturer is the main asset owned by a higher education institution; therefore, there is a necessity to comprehend the importance of intellectual capitals such as competence, commitment and work control for lecturers in order to arrive at work synergy, leading to high quality of graduates with high competitiveness value in the labour market, as expected by the users. Sumardjoko (2010) asserts that leadership and organisational culture contribute significantly towards achievement of motivation. Samson and Terziovski (1999) stated that leadership category, human resource management and customer focus are the strongest significant predictors for operational performance.

Strategic Planning → Three Principles of Higher Education. According to the

third hypothesis test, it was concluded that strategic planning affects positively on the implementation of the three Principles in Higher Education. It was proven by the t-statistic score reaching 14.312865, which is above the required t-table score (>2.0) and the parameter coefficient of 0.520847. Therefore, the two variables in this research, the three Principles in Higher Education and strategic planning are positively and significantly correlated. This hypothesis can be proven when a leader has to implement the principles in developing his/her strategic plan. Bobe (2012) acknowledged that a leader should comprehend the development of research capability, as well as the teaching and learning processes in their department. Furthermore, in the teaching and learning processes, any research results should be put into practice and then the activity should deal with the necessity to develop and provide good services to community in general since the experience gained through the learning processes in university level will be brought to the future workplace. Apriani (2011) suggested that leadership and effective implementation of the three principles of higher education go in the same direction. If the leadership skill is improved, the implementation of the three principles will effectively increase as well.

Human Resources → Three Principles in Higher Education. Based on the results of the third hypothesis test, it is concluded that human resource affects positively towards the three Principles in Higher Education. This is proven by the t-statistic score reaching 10.490254 exceeding its

required t-table score, which is > 2.0 and its parameter coefficient of as much as 0.419872. Therefore, human resource and the three principles are significantly correlated. This finding is supported by Narimawati (2008) who claims that lecturers are the core asset in higher education institution; thus, it is necessary to comprehend the intellectual capital such as lecturers' competence, commitment and work control to shape work synergy as demanded by the users of the product. The lecturers are one of the determining factors to conduct knowledge based research as the learning material for university students. Therefore, applied research would produce high quality graduates who are easily absorbed in work field. In addition, human resources should have competence in designing learning processes. Mason et al. (2009) discovered that structured work experience and stakeholders' engagement in designing any degree programme would create a positive relationship towards the probability of the graduates' fast job gaining upon finishing their programme. Kandiko and Mawer (2013) argued that university students discuss their learning experiences. This requires proper management, high standard and quality of the courses for degree programme in a fine curriculum structure.

CONCLUSION

The study results showed that in order to arrive at competitiveness in higher education institution, the three Principles of Higher Education including education and

learning, research and community service needed to be effectively implemented. In order to achieve this goal, every university requires a reliable leader. Pesic (2012), based on his study's results, claims that leadership may produce valuable, rare, imitable human resources. Sadiq (2014) states that there is a positive relationship between transformational leadership and organisational excellence. Higher education institution excellence can be observed from the graduates' quality as the result of learning processes. In addition to the graduates' quality, the number of research quoted and cited by other academia also determines the ranking. Lecturers' quality might be measured by their implementation of the Three Principles. Jenita (2014) asserts that graduates' quality has a positive correlation with lecturers' performance; when lecturers' performance increases significantly, the quality of the graduates is also improved. The role of the leader and strategic planning are also significant. Hill and McGregor (2003), from their study, highlight that lecturers' quality and a supportive system for university students are indispensable factors that determine education quality.

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The Influence of Management Control System on Good University Governance with Internal Auditor's Role as Mediation

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ABSTRACT

The relevance of Management Control System (MCS), Good University Governance (GUG) and internal auditor's role has become crucial in realising excellent service of the university to the community. The effectiveness of the role and relationship of these three factors, particularly in the State University is still limited and relatively partial, whereas the measurement is not broad and not in the alignment system model (fit model). The objective of this study is to prove the role of MCS on GUG with the internal auditor's role as a mediation. Results of the test by using structural equation modelling (SEM) showed that the indicators of each variable valid and reliable. This study proves that the effectiveness of MCS affects the GUG, but the internal auditor's role is not significant. Thus, this study does not support the effectiveness of the MCS role in the achievement of GUG through internal auditor's role. Auditors are still influenced by the old paradigm that is as a watchdog, the representative of the Chairman and not as a catalysator. However, this study confirms the indicators of the effectiveness of MCS, GUG and the role of internal auditors. Based on the findings, the competency of the internal auditors should be improved, especially in time management, communication skills, searching for evidence and explaining recommendations. The results of this research would be more interesting for further study if it were to be re-examined in the context of higher education with different characteristics and ownership status.

Keywords: Good University Governance, mediation, internal auditor

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INTRODUCTION

Service quality of the State University in Indonesia is considered unsatisfying (Sukirman & Sari, 2012). Breakthrough to

overcome this is through the application of good university governance (GUG) (Anggriawan, 2013). GUG can be seen as the application of the fundamental principles of the concept of “good governance” in the system and process of governance at institutions universities through various adjustments to be made based on the values that should be upheld in higher education (Henard & Mitterle, 2010). GUG not, but is also Odhe. GUG is not only administrative actions, but it is also responsible for involving the participation of all university’s stakeholders. Therefore, GUG requires a robust system which can ensure that the principles of GUG are implemented correctly. The system is known as the management control system (MCS) functions, and roles escorted and confirmed its effectiveness by the Internal Control Unit (ICU) University. While the critical success factors of the role and function of the ICU is the ability of internal auditors in carrying out the mandate of ICU (Sukirman & Sari, 2012). Thus, the relevance of these three factors (GUG, MCS, and the ability of the internal auditors) has become crucial in realising excellent service of the university to the community.

Tests the effectiveness of the role and relationship of these three factors in particular in the State University are still limited and relatively partial, whereas the measurement is not broad, and not in the alignment system model (fit model). Sukirman and Sari (2012), through the regression test, proved the role of internal auditors on GUG. Puspitarini (2012), in

addition to corroborating the findings of Sukirman and Sari (2012), also demonstrated the positive effects of the ICU unit on GUG. On the other hand, Anggriawan (2013), through a case study in Brawijaya University, evaluated the implementation, challenges and solutions related to the principles of GUG. The measurement of ICU on research, Puspitarini (2012) derived from the internal audit professional standards that included independence, professional ability, scope of work of internal audit, execution of inspection activities and internal audit management. The measurement of the role of internal audit in Sukirman (2011) implicitly departs from the essential functions of the auditor’s task is researching, evaluating an accounting system, as well as assessing the management policies implemented. The measurement of GUG is still moving from the implementation of the fundamental principles of GUG, namely, Transparency, Accountability, Responsibility, Independence and Fairness (TARIF).

This study examined the effects of ICU on GUG using different approaches. First, the effectiveness of ICU was seen deeper through the implementation of MCS within the framework of COSO (Committee of Sponsoring Organisations of the Tread way Commission) made by management as a key partner of ICU. The existence of ICU is essential to ensure the system is implemented by the Directorate. Secondly, the role of internal auditors can be viewed directly from their competence, attitude and professionalism when carrying out

the audit work. Third, the measurement of GUG is not just directly referring to TARIF but rather a result of applying the TARIF itself is an improvement over the university management practices. Fourth, testing structural equation modelling (SEM) within the framework fit as mediation is done by connecting directly ICU with GUG and indirectly connecting these two variables through the role of the internal auditor in one system. This research is expected to provide an overview of ICU's overall performance, as well as strengthen contingency theory as fit and implementation of GUG in Open and Distance Learning Higher Education (ODHE). Thus, this study aims to prove the influence of MCS as a form of ICU effectiveness on GUG, either directly or indirectly, through the role of the internal auditor.

Contingency Theory

Boezerooj (2006) states that one of the theories to explain the relationship between an organisation and its context is the contingency theory. The best way to manage an organisation is through the adoption of a variety of variables such as structure, strategy or policy that fits its contingency. According to Donaldson (2001), the fit is what is needed so that organisations can run effectively.

Drazin and Van de Ven (1985) asserted that fit and the definition of fit that was adopted is critical in the development of contingency theory. Fit can be seen as the compatibility between two or more factors that could have an impact on the

studied variables such performance. In the contingency theory, structure or governance, MCS, as well as performance, are related to one another (Porter, 1985; Martin et al., 2005). Furthermore, contingent upon all relevant variables must be explicitly stated and testable (Drazin & Van de Ven, 1985). When they wanted to test the model on the simultaneous relations, it must not only be sufficiently examined the association individually or partially, but it should be tested in a contingency system in order to produce an overall conclusion (Venkatraman & Prescott, 1990).

Fit of organisation and context has positive implications on the performance (Venkatraman & Prescott, 1990). Drazin and Van de Ven (1985) suggested that the system approach is the view intact in the application of the concept of fit. Venkatraman (1989) added that the fit may be present in many forms, one of which is fit as mediation.

Management Control System (MCS)

Sourced from an academic paper of Universitas Terbuka's ICU (2009), in order to achieve organisational goals, the needed MCS includes control system procedures that are tangible and a controlled substance that is intangible in order to monitor and ensure the alignment of all activities of the unit carried out by the organisation to the business strategy and other activities that have been established and recommends corrective actions if there are any irregularities. ICU has a crucial role to ensure MCS with oversight and act as strategic partners. Based on the

COSO Framework, the MCS includes five components: (1) control environment, (2) risk assessment, (3) control activities, (4) information processing and communication, and (5) monitoring.

The role of Internal Auditors

GUG implementation takes the roles of internal auditors in charge of researching, evaluating an accounting system, and assessing the management policies implemented. Internal auditors are one of the professions that supports the realisation of GUG, which has grown to be an important component in improving the effectiveness and efficiency of the University (Sukirman & Sari, 2012). Puspitarini (2012) and Sukirman and Sari (2012) proved the role of internal auditors on the GUG.

Good University Governance

GUG is crucial for a university; Henard and Mitterle (2010) described the Governance of Irish University (2007) as follows:

“A robust system of governance is vital to enable organisations to operate effectively and to discharge their responsibilities as regards transparency and accountability to those they serve. Given their pivotal role in society and national economic and social development, as well as their heavy reliance on public as well as private funding, good governance is of particular importance in the case of the universities.”

The basic principles that should be followed in the administration of the higher education institution if it consistently wants to apply the concept of GUG. Application of these principles broadly is placed in almost any context of the problems that occur in the administration of the university.

The better GUG from the standpoint of ICU is when the audit does not find that material and significant findings. However, the focus of ICU's role shifts from watchdog role into the role of a strategic partner and a catalyst. Internal control becomes increasingly powerful and is able to prevent misfit in the application of the principles of GUG.

Hypothesis Development

MCS is viewed as one of the variables that determines the college in achieving its objectives. MCS was implemented by ICU to realise GUG (ICU-UT Academic Paper, 2009). Puspitarini (2012) proved that ICU has a positive role in the achievement of GUG. These results confirmed the results of the study by Sukirman and Sari (2012), which established the position of the ICU was derived from the enormous contribution of internal auditors in the achievement of the GUG.

In contrast to the research works by Puspitarini (2012) and Sukirman and Sari (2012), this study tried to look at the measurement of the MCS, GUG, the role of internal auditors in the different dimensions and build the model fit as the mediation. Indeed, the core functions of the ICU itself are to implement internal controls to identify

and measure objectively and independently of the alignment of the implementation of the activity with the plan, policies, rules and regulations, systems for recording and reporting, as well as human resource development system that has been set. Thereby, measuring the effectiveness of ICU correctly is to look at the implementation of elements of internal control exist on the part of the strategic partner ICU. On the contrary, the internal auditor's role can be seen from the ability of internal auditors in carrying out the audit process. The GUG achievement can be seen from the significance and materiality of the audit's findings. The most significant findings of, the better practices of GUG. Based on the thinking and previous studies, the research hypotheses are as follows.

- H1: the MCS has a positive influence on GOV
- H2: the MCS has a positive influence on AUDITOR
- H3: the AUDITOR has a positive influence on GOV
- H4: the MCS has a positive influence on GOV through the AUDITOR
- H5: simultaneous MCS has a significant positive influence on GOV
- H6: form fit as mediation between MCS and governance through the AUDITOR

METHODS

The research method used survey design and testing hypotheses to test the relationships

of all the studied variables. A purposive sampling method was used on 138 strategic business units of ODHE in Indonesia for the internal audit period of 2012-2015. MCS information was obtained from the MCS assessment by the Auditor on the practice of MCS on the audit units. Information on AUDITOR was obtained from the assessment of the chairman of the auditees' units of competence audit team leader. Meanwhile, Good University Governance (GOV) was derived from the findings of the audit. MCS information and AUDITOR are taken through a questionnaire that had been tested for validity and reliability. According Ridgon and Ferguson (1991) and Doll, Xia, and Torkzadeh (1994), as cited in Wijanto (2008), a variable is said to have good validity to construct or variable latent, if t-value of loading factors is greater than the value critical (or t-value > 1.96), and the value of standardised loading factors > 0.70. Meanwhile for reliability, Hair et al. (2007) stated that a construct has an excellent reliability if the value of Construct Reliability (CR) is > 0.70, and the value of Variance Extracted (VE) is > 0.50.

The only exogenous variable in this study is the MCS. MCS indicator refers to the COSO framework that includes: (1) a controlled environment, (2) risk assessment, (3) control activities, (4) information and communication processing, and (5) monitoring. Endogenous variables in this study included two variables (GOV and AUDITOR) as a moderating variable. GOV consists of one indicator is the findings. AUDITOR consists of 8 (eight) indicators:

(1) audit in general, (2) Communication, (3) Control of work (4) Time Management (5) How to find evidence, (6) Explanation of the auditor general condition, (7) explanation of the auditor on the findings, and (8) explanation of the auditor on the recommendations.

The structural model of alignment MCS and GOV in Figure 1 shows the relationship of exogenous latent variables, MCS, on endogenous variables, GOV, through endogenous variables, AUDITOR.

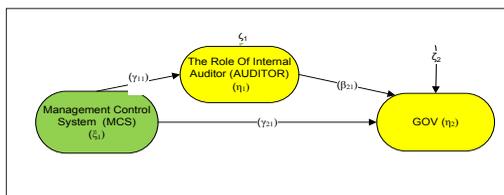


Figure 1. Research Structural Model

Analysis Method

In the SEM, there are three primary relationships among the variables involved, as indicated by the coefficient parameters: (1) the structural effects of endogenous variables on other endogenous variables, denoted by β (beta), (2) a structural effect exogenous variables on endogenous variables, denoted by γ (gamma), and (3) the effect of the measurement of latent variables for unobserved variable or indicator, denoted by λ (lambda). The LISREL Programme (version 8.70) provides this analysis with two types of parameters, namely, the original coefficient value and the standardised value.

Test of the Fit of Model to the Data

According Hair et al. (1998) evaluation of the fit of the data to the model is done

through several stages, namely, first Match Overall Model. According to Wijanto (2008) and Ghozali (1998), the purpose of testing the suitability of overall model is to evaluate the general degree of congruence or goodness of fit (GOF) between the data model by using some measure GOF or Goodness of Fit Indices (GOFI) that can be used together or in combination. After ensuring that the suitability of the model and the data, on the whole, is good, the next step is the evaluation or measurement of model fit test. This evaluation is carried out on each construct or model of measurement for the relationship between the latent variable with some observed variables (indicators) separately through the assessment of the validity and reliability of the measurement model.

The structural model includes an examination of the significance of the estimated coefficients. SEM and the LISREL programmes (version 8.70) value coefficients were determined and the value of t-test for each coefficient. By specifying the level of significance (usually $\alpha = 0.05$), each factor representing the hypothesised causal relationships can be tested for statistical significance (if different from zero). The coefficient of zero indicates smaller effect. Increasing the value of the coefficient is associated with the increase in the importance of the relevant variables in a causal relationship. As the overall size of the structural equation, the overall coefficient of determination (R^2) was calculated as regression.

If the model fits the data, the model of the initial hypothesis may explain the structural

equation desired. However, if there is a mismatch between the model and the data, the model needs to be modified at the beginning to improve the results for fitness (Hatcher, 1996).

RESULTS AND DISCUSSION

Statistical descriptions indicate on a scale of bad, less, enough and good for all the indicators of the MCS variables in the range enough. Control activities are an indicator that has the lowest average, followed by successively risk assessment, information processing and communication, and monitoring. The indicator control environment has the highest mean value.

On a scale of incompetent, less competent, quite competent and competent for all the indicators of AUDITOR have

an average value competent. Competence with the lowest mean value is an indicator of control over the work, followed by consecutive time management and an explanation for the state auditor general, how to look for evidence, explanations on the findings of the auditor, and the auditor's explanation for the recommendations. Indicators that have the highest average value of communication and the conduct of audits in general. On a scale of material, enough material, less material and not material, materiality indicators for the variable GOV findings show a mean value approaching less material.

All the indicators have a standard loading factor of 0.70 and the t-value above 1.96, which means it meets the criteria of validity. MCS, AUDITOR and GUG have

Table 1
Statistic Descriptive of Research Indicators

Indicators	Mean	Min	Max	Standard Deviation
<i>Management Control System (MCS)</i>				
control environment (X1)	3.13	1	4	0.66
risk assessment (X2)	3.04	1	4	0.60
control activities (X3)	3.01	1	4	0.59
information and communication processing (X4)	3.07	1	4	0.68
monitoring (X5)	3.09	1	4	0.69
<i>Role of Internal Auditor (AUDITOR)</i>				
audit implementation in general (Y1)	3.78	2	4	0.44
communication (Y2)	3.80	2	4	0.42
control over work (Y3)	3.60	2	4	0.53
time management (Y4)	3.67	2	4	0.49
how to look for evidence (Y5)	3.69	2	4	0.51
explanation for the state auditor general (Y6)	3.67	3	4	0.47
explanations on the findings of auditors (Y7)	3.70	2	4	0.49
explanation auditors on recommendation (Y8)	3.73	2	4	0.46
<i>Good University Governance (GOV):</i>				
materiality findings (GUG)	2.88	1	4	0.90

constructed reliability that is above 0.70 and variance extracted over 0.50, indicating compliance with the standards of reliability. Results of testing the goodness of fit indicate that the model fits the data.

Overall, in accordance with the structural model built, the model testing results of SEM by using LISREL Programme (version 8.7) are as follows:

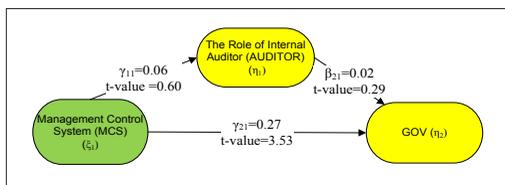


Figure 2. Results of Structural Model Test

In the regression equation, it is written as follows:

1) Partial Effect

$$\text{AUDITOR} = 0.056 * \text{MCS}, \text{Errorvar.} = 1.00, R^2 = 0.0031$$

(0.093) (0.20)
0.60 4.96

$$\text{GOV} = 0.023 * \text{AUDITOR} + 0.27 * \text{MCS}, \text{Errorvar.} = 0.74, R^2 = 0.092$$

(0.079) (0.077) (0.090)
0.29 3.53 8.19

2) Indirect Effect

	MCS

GOV	0.00
	(0.00)
	0.26

3) Simultaneous Effect

$$\text{GOV} = 0.27 * \text{MCS}, \text{Errorvar.} = 0.74, R^2 = 0.091$$

(0.077)
3.55

Estimation of the measurement model to see if the indicators used are reflecting each study variable. Table 2 presents the

Table 2
Measurement Model Estimation Results

Indicators	Estimates value	t-value*
<i>MCS</i>		
control activities (X3)	0.55	14.27
risk assessment (X2)	0.56	14.04
information and communication processing (X4)	0.56	11.87
monitoring (X5)	0.59	12.39
control environment (X1)	0.63	14.93
<i>AUDITOR</i>		
time management (Y4)	0.24	5.64
Communication (Y2)	0.31	8.41
how to look for evidence (Y5)	0.32	7.16
explanation auditors on recommendation (Y8)	0.32	7.83
audit implementation in general (Y1)	0.33	
explanation for the state auditor general (Y6)	0.34	8.32
explanations on the findings of auditors (Y7)	0.37	8.74
control over work (Y3)	0.37	7.90
<i>Good University Governance (GOV)</i>		
materiality findings (GUG)	1.00	

*Significant level $\alpha=1\%$.

estimation results for the indicators of the variables.

Table 2 shows that all indicators significantly reflect each study variable ($\alpha = 1\%$). The successive estimated values of MCS from lowest to highest are control activities, risk assessment, information processing and communication, monitoring, and control environment. As has been stated earlier on, the MCS practices are a reflection of the effectiveness of internal control units. It appears that the control activities, risk assessment, information processing and communication are the indicators that should be improved, given the fact that control environment and monitoring are already well.

AUDITOR consecutives to the estimated value of the lowest to the highest are time management, communication, how to look for evidence, explanations on the recommendation of auditors, and audit implementation; in general, the report for the state auditor general, auditor explanations on the findings and control over the work. Four indicators of weakness of auditors should improve the ability of the auditor to complete the time audit management, communication with the auditee, how to find supporting evidence and explanation of the auditor's findings. However, overall, the auditors are deemed as mastering audit work.

Based on the mean value, it appears that GUG ODHE should be improved because it is still in the range of up to a good enough yet. The findings indicate that the material is a necessary strategic step in developing

GUG ODHE. The overall results confirm that the indicators developed by each study variable can be used to determine the significant factors of the MCS variables, the roles of Internal Auditor and GUG.

The effect of MCS on GUG

MCS affects the ODHE's governance with estimated value=0.27 and t-value=3.53, which means significant at $\alpha = 1\%$. The better the management control practices, the better governance of ODHE. These results support the findings of Puspitarini (2012) and Sukirman and Sari (2012). If viewed from $R^2 = 9.2\%$, it appears that the overall effect of MCS on GUG is very small. Other than MCS, there are more variables affecting GUG. However, these results provide enough evidence to show MCS contributes to the improvement of ODHE's GUG. In order to improve ODHE's GUG, MCS indicators that should be enhanced are control activity and management based on risk. Thus, H1 (the management control system has a positive influence on governance) is supported.

The effects of MCS on the Role of Internal Auditors

The effect of MCS, as a reflection of ICU on the role of the internal auditor, is not significant at $\alpha = 1, 5, \text{ or } 10\%$; the estimated value of 0.06 and t-value = 0.60. These results do not support the findings of Puspitarini (2012) and Sukirman and Sari (2012). On the other hand, the findings of this study are quite interesting as it gives

one real strength of ICU, i.e. the competence of internal auditors. An apprenticeship learning process that has been developed for ICU has not been optimal raising all the parameters of the auditors' competence. Moreover, ICU has not been able to improve the effectiveness of the internal auditors' competence, especially in the management of time to complete the audit, communication with the auditees, how to find supporting evidence and explanation of the auditor's findings. It takes special training on time management, especially discipline, in keeping the schedule of audits in the audit programme. Way, style and content of communications to the auditee before, during and after the audit need to be improved. Confirmation of the auditee confirms that the auditee sometimes does not understand the intent of the auditors on the message being communicated. Similarly, when searching for supporting evidence, the auditees are uncomfortable and the explanation of the auditor's findings may not provide sufficient opportunity for the auditees to confirm and argue. Thus, H2 (management control system has a positive influence on the internal auditor's role) is not supported.

The effects of the Role of Internal Auditor on GUG

The effects of the role of internal auditors on ODHE's GUG are not significant at $\alpha = 1\%$, 5% , or 10% ; the estimated value of 0.02 and $t\text{-value} = 0.29$. These results do not support the findings of Puspitarini

(2012) and Sukirman and Sari (2012). ICU internal auditor competence has not been able to improve ODHE's GUG. Descriptive statistics show that ODHE's GUG is anywhere near enough, but it is not because of the internal auditor's role, if any role is minuscule and insignificant. Auditor is yet to fully apply the paradigm consultant and catalyst and still implement the paradigm watchdog who tends to find many findings but has not had a significant impact on improved governance of the auditee. Thus, a refresher needs to be done to improve the auditor's understanding of the paradigm as a consultant and a catalyst whose output is short-term and long-term solutions for improving governance. Thereby, H3 (the role of the internal auditor has a positive effect on governance) is not supported.

The effect of MCS on GUG through the Role of Internal Auditor

The indirect effect of MCS on ODHE's GUG, through the role of the internal auditor, is not significant to the estimated value= 0.00 and the $t\text{-value}=0.26$. These results do not support the findings by Puspitarini (2012) and Sukirman and Sari (2012) which also confirmed the test results for H2 and H3. These findings provide an important signal that immediately enhances the role of internal auditors in increased ODHE's GUG, through increased competence, especially in time management, communication with the auditee, how to find supporting evidence and explanation of the auditor's findings.

Thus, H4 (system management control has a positive effect on governance through the internal auditor's role) is also not supported.

The Simultaneous Effect of MCS on Good University Governance

The MCS simultaneous effect against GUG is significant at $\alpha = 1\%$, with the estimated value = 0.27 and t-value = 3.55 and $R^2 = 9.10\%$. The results proved that MCS has a dominant role in influencing ODHE's GUG. There are other variables beyond MCS, which play a role in improving the governance of around 91%. Thus, this study supports the evidence presented in part by Puspitarini (2012) and Sukirman and Sari (2012) in relation to the influence of MCS on GUG. Therefore, H5 (simultaneously, management control systems has a significant positive effect on governance) is supported.

Fit Model as a Mediation

One goal of this research is to build a model fit as a mediation. The direct effect of MCS on GUG is significant on $\alpha = 1\%$, with the estimated value=0.27 and t-value = 3.53 (H1). While the effect of MCS on governance through the internal auditor's role is not significant at $\alpha = 1\%$, 5% and 10%, with the estimated value =0.00 and t-value = 0.26 (H4). As H4 is insignificant and H1 is significant, then fit as a mediation is not formed. Thus, based on the results obtained by Puspitarini (2012) and Sukirman and Sari (2012), H6 (fit forms as a mediation between management system

control and governance through the internal auditor's role) is not supported.

These results provide a strong enough message to the ICU that needs a big step and systematic to the role of internal auditors so as to provide a significant impact on the improvement of ODHE's GUG through increasing the capacity or competence of an internal auditor. Increasing the role of internal auditors is becoming important and urgent, given the results of the audit ICU and GUG be part of the management's performance measurement indicators. Besides, internal auditor also become the foundation for increasing the ICU effectiveness of proven ICU effectiveness that can increase ODHE's GUG.

CONCLUSION

Based on the results of hypothesis testing, it can be concluded that MCS, as a form of effectiveness of ICU, affects ODHE's GUG, both directly and simultaneously. Nonetheless, the influence of the role of internal auditors in the improvement of governance has not appeared, either directly or indirectly, in model fit as a mediation. Internal auditor's competence in time management when conducting an audit, communications with auditors, how to search for evidence, and explanation on their recommendation to the part that causes the internal auditor's role has not been attained.

The model developed could prove the influence of MCS on GUG by around 9%. MCS indicators should be optimised so that their role in governance leads to greater control activities, risk-based management,

as well as information and communication processes. Beyond that, besides MCS, there are other variables that affect the governance, both in the external and internal environment.

Among the limitations of this study is that the work was conducted in a strategic business unit from one institution alone. In addition, the respondents who filled the instrument were from one side only, i.e. the auditees were top leaders and those in the top management. Similarly, the internal auditor's competence is taken only from the head of the audit team when the internal auditor could also include members of the audit team. Therefore, further research needs to be done to expand the research on the corporate level, the auditees being surveyed, including those who are directly related during audit, as well as the internal auditors surveyed, including members of the audit team.

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Conflicts between Shareholders in ASEAN 5 M&A

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ABSTRACT

The paper investigates principal-principal (PP) conflicts arising in mergers and acquisitions (M&A) in ASEAN 5 countries; Indonesia, Malaysia, Philippines, Singapore and Thailand. The issue is of importance to investors and the growth of equity markets in ASEAN countries in South East Asia and probably well beyond. Large controlling shareholders in Asian public limited corporations, according to prior research, do cause agency conflicts. However, the net effects cannot be estimated with any degree of accuracy without understanding and being able to distinguish the single effect of an investment project. The relation between large shareholders and agency conflicts is difficult to test empirically since no public information is provided at the individual investment project level, which differs from the case of corporate mergers and acquisitions (M&A) (Amihud, Lev, & Travlos, 1990). The diagnostic testing potential the analysis to utilise Hausman-Taylor (HT) technique that takes into account time variant and time-invariant data into the model analysis. PP conflicts associated with M&A were found to be rampant. These suggest consequences in terms of limited willingness to participate in shareholding as part of individuals' portfolios. Similarly, challenges regulators concerned to promote the secondary market for equities are addressed in this paper by promoting the use of dividend ratio policies as an indicator for PP conflicts.

Keywords: Principal-principal conflicts, merger & acquisition, dividend policy, ASEAN

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INTRODUCTION

In many concentrated holding companies, non-controlling shareholders or minority shareholders may be treated unfairly due

to a lack of development in capital markets leading to deficient protection for outside investors (La Porta, Lopez-de-Silanes, & Shleifer, 1998, 1999). In addition, companies which have the greatest concentration of shareholding also exhibit less company's overall value (Barontini & Siciliano, 2003).

M&A activities in the selected ASEAN countries provide a solid platform for the study of PP conflicts in the region. Metwalli and Tang (2002) reported that M&A activities in Asia have expanded significantly from US\$16.1 billion in 1990 to US\$48.2 billion in 2000, and by 2004, about one third of the total world M&A activities are in Asia (Kim, 2009). The M&A activities continue to show increased trend, especially in Malaysia, remaining as the most active market as compared to the other countries in ASEAN (Soon & Hekkelman, 2013).

Research in the mature markets suggests that large shareholders are important in reducing Principal-Agent (PA) conflicts. They have higher incentives and more resources to efficiently monitor the company's performance (Jensen & Meckling, 1976; Schleifer & Vishny, 1986). These large shareholders may attain private benefits from this control that may be translated into financial and non-financial benefits for them. A non-financial benefit is the amenity of being in control (Demsetz & Lehn, 1985), while financial benefits of being in control can be explained in the context of expropriating the wealth of minority shareholders (B. Maury, 2004).

The role played by a dividend payout ratio should be inherent to address concentrated holding companies or PP conflict issue. Dividend payment is regarded as an avenue for the controlling shareholders to extract resources away from the company (Easterbrook, 1984; Faccio et al., 2001; La Porta et al., 2000) for own private benefits (Chiou et al., 2010). Recently, Banchit and Locke (2011) viewed that PP conflicts do exist in ASEAN 4 market via higher payment of cash dividends.

Dharwadkar et al. (2000) stress that the traditional agency solutions to mitigate the PA conflicts in developed economies are not necessarily effective in emerging economies due to that the existence of other unique conflicts. This paper investigates PP conflicts and address these occurrences in the context of M&A in Asean 5, addressing the question whether concentrated ownership in Asean 5 markets empowers large shareholder to expropriate income during M&A activities.

Within Southeast Asia, these five countries are regarded as major in the economic expansion through M&A. Metwalli and Tang (2009) described their convenient geographical proximity along the busy Strait of Malacca and the southern part of the South China Sea, as well as stable growth rate as the reasons why ASEAN 5 has leading the most number of M&As activities for the past 20 years. The study of ASEAN 5 can be generalised for the Southeast Asian, as well as the overall developing market.

LITERATURE REVIEW

PA and PP conflicts

Principal-Agent (PA) conflicts are a result of lack of goal congruence between shareholders (principal) and managers (agent) who are appointed to administer the company's assets. Though this traditional problem has been widely explored, Dharwadkar et al. (2000) pointed out that agency theorists offering solutions in mature markets have not considered the PP problem. In the context of PP conflicts, the underlying factors of information asymmetry, moral hazard and adverse selection still prevail, but the problems lie mainly in the conflicts between large and small shareholders (Su, Xu, & Phan, 2008).

PP conflicts can be explained as a range of subsets. Large shareholders might use their voting power to control the company for their own interests while other dispersed shareholders and stakeholders bear the cost (Johnson, La Porta, Lopez-de-Silanes, & Shleifer, 2000). Conflicts between shareholders may be shown in outright expropriation such as controlling shareholders, not paying dividends but appropriating fund for themselves, transferring profits to other companies they control, and indirect expropriation by making non-profitable business ventures (Shleifer & Vishny, 1997; Morck, Stangeland, & Yeung, 1998; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1999; Song & Chu, 2011). Managerial entrenchment is also an issue (Schulze, Lubatkin, Dino, & Buchholtz, 2001) through hiring unqualified

family members in the top management positions.

PP conflicts are potentially more detrimental in emerging economies. Faccio, Lang, and Young (2001) documented the problems of East Asian corporate governance as more severe than in mature markets due to the extraordinary concentration of control. Ownership in East Asia is mostly in blocks or single shareholders (Claessens, Djankov, & Lang, 2000; Lins, 2003). Weak legal protection for minority shareholders (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997; Dharwadkar, et al., 2000) results in a more vulnerable status for minority shareholders than would be the case in more mature markets with stronger legislation.

Large shareholders are deemed to be advocates for the ultimate balance in decision making between the shareholders and managers. In publicly held corporations, these large shareholders hold a sizeable fraction of all voting rights may solve the problems of "modern capital markets", where there is always the inevitable agony in monitoring the management to act in the best interest of the shareholders. Large shareholders are in a position where they can benefit from inside information they obtain from the management, while at the same time be able to influence the corporate outcomes because of their powerful voting rights (Zeckhauser & Pound, 1990).

Different definitions of large shareholders are analysed in the literature. Dahya, Dimitrov, and McConnell (2008) define a dominant shareholder as the one who can significantly influence selection

of the company's board. Their data include the largest single owner of voting rights in companies with at least 10% of the company's votes. La Porta et al. (1998) and Claessens et al. (2000) identified controlling owners when they hold more than 20 percent of the shares in the company. In reality, while 33 percent voting power would in fact give de facto control, Loh (1996) describes that a 15-25 percent control over voting rights is sufficient for control over a corporation. It is ubiquitously agreed that large or controlling shareholders are those who are more likely to wield a large influence over the company and thus impact decision-making processes. Shareholders who hold less than the controlling shares are regarded as the minority or small shareholders.

Large shareholders may also opt to collude with managers to divert the resources off the company and share private benefits (Burkart & Lee, 2008; Becht, et al., 2010). These conflicts may be exacerbated when large shareholders also hold managerial positions in the company. Furthermore, one of the key assumptions of PP conflict is that managers act as agents and answer directly to the controlling shareholders (Young et al., 2008).

Board members elected to represent company's shareholders are formed to align the interests of principals and agents. However, large, controlling shareholders have a stronger tie to the managers/executive directors and are known in the literature to have a considerable influence to elect their choice of directors, especially when most of public companies are mostly owned by family members. Hence, the Board

and managers owe their allegiance to the controlling shareholders as opposed to the whole body of investors (Singhai, 2002). Nonetheless, this study does not take into account board ownership in the analysis as this will not give a true representative of corporate ownership in the East Asian market. This is because many of these holdings are owned by directors through indirect ownership, which is usually in the form of private limited companies or nominee companies whose identities remain anonymous (Chu & Cheah, 2004).

Not only that, Morck et al. (1998) also showed that concentrated control may stunt companies' growth as opposed to their companies with diffused ownership as large shareholders may put their interest first by preserving their investment in the company. By using cash flow associated with controlling shareholders, La Porta, Lopez, Shleifer and Vishny (1999) stated that countries that have law to better protect minority shareholders will also have higher valued companies than those companies with less regulation. Some of the merits analysed included in the legal protection are whether shareholders would send a nominee if they could not attend a meeting for a vote, ability to mail their proxy vote directly, allowing legal mechanisms against oppression by directors and that minority interests may vote cumulatively for their choice of directors or board, or if the country are mandated to pay dividend (La Porta et al., 1998).

Faccio et al. (2001) observes that companies with controlling shareholders in Asia extract high returns from projects

that incur negative investment returns and pay lower dividends than their counterparts in Europe. Chang (2003) found large shareholders in Korean companies use insider information to transfer profits to less profitable and less promising affiliates through intragroup trade, and that there is no evidence of better company performance with concentrated ownership. Since the idea of dispersed ownership does not universally hold true, especially in emerging markets, Young et al. (2008) strongly affirmed that PP conflicts are the major concern of corporate governance in emerging markets. The literature focusing on PP conflicts is developing (Su, et al., 2008; Chen & Young, 2010; Jiang & Peng, 2010) but the authors assert that because of the unique nature of the PP problem, it has been ignored by the mainstream agency theory, and more research should address the problem stemming from large shareholders (Chang, 2003). The paper accepts this challenge in addressing this unique yet crucial problem, using cross-country analysis of panel data for the five most active economies in East Asia. This will help to illuminate PP conflicts issues with a potential for betterment of financial and economic outcomes in the region.

Dividends as Proxy for PP conflicts

The most prominent agency problem suggested in the literature in East Asia agency relationship is the expropriation of profit from large controlling shareholder as established in the literature (Shleifer & Vishny, 1997; Bebchuk, Kraakman, &

Triantis, 1999) which typically representative PP conflicts. As mentioned by Faccio et al. (2001 p.55), “dividends play a basic role in limiting insider expropriation because they remove corporate wealth from insider control.” In another statement, “dividends signal the severity of the conflicts between the large, controlling owner and small, outside shareholders” (Gugler & Yurtoglu, 2003, p. 733).

This paper builds upon this research by relating dividends to large controlling shareholders. The next issue to address is whether lower or higher dividends explicate PP conflicts? Contradictory studies of higher or lower dividend payouts related to expropriation among large shareholders have been undertaken. It can be argued that the high concentration of shareholdings using direct and indirect voting rights may worsen the expropriation among minority shareholders especially during mergers and acquisitions. Why dividends are paid is always an intriguing dilemma as suggested by many scholars, including Renneboog and Trojanowski who stated that “the controversy about why firms should pay dividends has not been satisfactorily resolved” (2005, p. 2).

In the agency context, dividends play a basic and important role in the reduction of agency cost. By paying out dividends, corporate earnings or free cash flows are returned to investors and are no longer available to management to benefit themselves (Rozeff, 1982; Jensen, 1986). Jensen and Meckling (1976) corroborated that managers are reluctant to pay out

dividends for shareholders' benefit, but rather permit them to enjoy corporation's income for their own perquisite consumption. This corresponds to the free cash flow theory developed by Easterbrook (1984), which was discussed extensively in later work (Jensen, 1986; Gugler & Yurtoglu, 2003; Bena & Hanousek, 2005). Companies in the United Kingdom use dividends to maintain shareholder loyalty, supporting the free cash flow theory that the market is disciplining the managers (Dickerson, Gibson, & Tsakalotos, 1998). This is shown in the negative relationship with dividend payments to the probability of companies being taken over.

Agency theory also supports the notion of using dividends to limit the conflicts among the agents and principals by reducing the gap in information asymmetry or disequilibrium. Any payouts of dividend to shareholders convey credible information to the market which are usually private to the insiders (board of directors and management) (Bhattacharya, 1979; Miller & Rock, 1985). It is assumed that dividend payments require managers to participate in the capital market more frequently because cash dividends paid will use up the companies' fund. Hence, any future investments will ensure managers to supply as much information as possible to the shareholders in order to apply for more funds.

Banchit and Locke (2011) explored the concept of PP conflicts by measuring them with cash dividends paid out to large shareholders. A cross-sectional analysis was conducted in a small sample

of 194 companies in ASEAN 4 (Indonesia, Malaysia, Thailand and Philippines) by regressing cash dividend to total assets, with other variables including the large shareholdings (measured at 5% to 20% concentration level). They asserted that there is evidence that suggests the presence of large shareholders paying more dividends, and this impacts negatively with the cash flows and growth, which in turn implies PP conflicts in the Asian markets. It is summarised that minority shareholders are at risk of being expropriated, which calls for urgency in stronger investor protection in these markets to improve the attractiveness for investors' performance.

Dividends have been demonstrated in previous studies as providing evidence of how controlling shareholders expropriate minority shareholders. High dividends reduce the value of the company (Lins, 2003) and thus negatively impact its growth. Alternatively, lower dividend payouts mean that large shareholders prefer keeping earnings within the company for their easy access to expropriate for own private benefits (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000; Pinkowitz, Stulz, & Williamson, 2006). Discerning how both high and low dividends may reflect PP conflicts requires consideration of a range of other variables.

HYPOTHESIS

Prior empirical studies deduce that in markets (such as in South East Asia) with concentrated ownership, the main agency problem may be between the controlling

shareholders and the minority shareholders (Johnson, Boone, Breach, & Friedman, 2000; Claessens, et al., 2002). Controlling shareholders dominate board members and managers to expropriate resources company to their private benefits (Faccio et al., 2001) and high dividend disbursements may one of the ways this may be revealed and ultimately measured (Faccio, et al., 2001; Maury & Pajuste, 2002; Chiou, Chen, & Huang, 2010).

Companies in certain countries have been found to pay higher dividends to suggest higher potential of conflicts between shareholders (Berzins, Bohren, & Stacescu, 2011). It has also been discussed that since large controlling shareholders in Asia have a direct management role, including making M&A decisions for their companies, it is anticipated that significant relationship with large shareholders and dividend payments may indicate PP conflicts. It is suggested in the first hypothesis for which it is envisaged that there will be a positive relationship with dividend payment and largest shareholders associated with M&A.

H1: There is a positive relationship between the largest shareholders and PP conflicts (dividend) associated with M&A.

Because many past studies have used performance measurement to proxy for expropriation from large shareholders, this study incorporates Tobin's q as a robust measure of PP conflicts. Doukas, Kim, and Pantzalis (2000) explained that poorly managed companies in the US are more likely to be exposed to higher agency

costs than well-managed companies. This is as consequent of when a company is performing below the market value, it is more likely to waste its free cash flows in a non-positive net present value projects. It is anticipated for the next hypothesis that there is a negative relationship between company performance (Tobin's q) and large shareholders.

H2: There is a negative relationship between large shareholders and PP conflicts (performance) associated with M&A

DATA AND METHODOLOGY

Table 1 presents the sample selection criteria for this study. The original dataset comprised of 4253 effective M&A deals. However, the final sample was reduced to 1,013 deals (807 acquiring companies) from the years 2000 to 2008 after going through the different stages of sample selection explained below. Generally, there are three main stages in building the sample dataset to ensure it is appropriate for the analysis.

Table 1
Sample selection Criteria

Total available effective deals (SDC Database)	
Effective deals from 2000 - 2008 (Less)	4253
Banks, other finance and utilities	738
Multiple bids	1728
No data available (ownership, financial data)	774
Total available effective deals for analysis (Comprises of 807 acquiring companies)	1013

Data were extracted from Securities Data Corporation's (SDC) Platinum™ *Worldwide Mergers & Acquisition Database*. This database is regarded as the most comprehensive source of M&A transaction data than any other sources (Lang & Tudor, 2003). Researchers in M&A studies have also been using this database extensively to conduct their analysis (Luo, 2005; Ben Amar & Andre, 2006; Faccio & Stolín, 2006; Kamaly, 2007; Martynova & Renneboog, 2009).

All completed and successful M&A companies from January 2000 through December 2008 were collected inclusively. Ratio of common dividends to cash flow was used when available. If no data are available, information on common dividend is taken from the difference of total dividends and preferred dividends (Denis & Osobov, 2008). Because of the differences in accounting standards of each country, other measures of dividend payout ratio are analysed as well.

For robust analysis, Tobin's q as one of the dependent variable is also being used following that many past studies utilise this in their methods (Wiwattanakantang, 2001; Cronqvist & Nilsson, 2003; Dahya, et al., 2008). Their argument is that Tobin's q acts as a proxy of performance measurement will indicate that lower/higher company value shows higher/lower expropriation incidence by the dominant shareholders. Most often, Tobin's Q ratio is calculated as the market value of assets measured by the sum of market value of debt and equity divided by replacement of assets. However, replacement cost information is not readily

accessible because of the unavailability of financial information from past decades and the inactive corporate debt market in South East Asia (Yon, 1999). Hence, an alternative acceptable measurement of Total Asset (sum of the book value of equity, debt, and preferred shares) is used to replace this information (Chung & Pruitt, 1994).

For the purpose of this paper, the ownership data were collected 1 year prior to the announcement of the M&A. This is because the final decisions by the management for M&A would have been made prior to the announcement of the M&A. Hence, only acquirers with ownership data that are available 1 year prior to the announcement date selected which include those from years prior to the year 2000 up to year 2007. Further check also revealed that there were no significant changes in shareholdings after the M&A.

Alternative panel regression: Hausman-Taylor (HT) estimator

A basic empirically testable dividend model was developed by Andres, Betzer, Goergen, and Renneboog Andres et al. (2009)¹, where it was based on Lintner's (1956)

¹Lintner (1956) partial adjustment model: $Div_{it} = r_i E_{it}$ (E=Earnings). It is rewritten to $Div_{it} - Div_{i,t-1} = \alpha_i + \beta_1 (Div_{it} - Div_{i,t-1})_{it} + \mu_{it}$. Upon using Fama and Babiak (1968) extended partial adjustment model by including a lagged earnings variable: $E_{i,t-1} = (1 - \lambda_i) E_{i,t-1} + v_{it}$ where v_{it} is a serially uncorrelated error term. After arrangement to the full adjustment of dividends to the expected earnings change $\lambda_i E_{i,t-1}$, and partial adjustment to the remainder: $Div_{it} - Div_{i,t-1} = \alpha_i + \beta_1 (r_i E_{it} - \lambda_i E_{i,t-1}) - Div_{i,t-1} + r_i \lambda_i E_{i,t-1} + \mu_{it}$ (Andres, et al, 2009).

dividend model of adjustment of the current dividend as a function on the dividends of the previous year and earnings. This model has been claimed as being the best and commonly used in the setting of dividend (Khan, 2006).

$$Div_{it} = \beta_0 + (1 - \beta_1)Div_{i,t-1} + \beta_2Earn_{it} + \beta_3Earn_{it-1} + \beta_4Year_t + \eta_i + V_{it} \quad (1)$$

where

Div_{it} and $Div_{i,t-1}$, = Dividend per share company i pays in year t and $t-1$ respectively, (t =effective year of M&A)

$Prof_{it}$ = Published profits in year t or Cash Flow per share at time t for firm i

$Year_t$ = with $t=1, \dots, T$ are time dummies that control for the impact of effective year/time on the dividend behaviour of all sample companies

η_i . = is a firm-specific effect to allow for unobserved influences on the dividend behaviour of each company and is assumed to remain constant over time

V_{it} = disturbance term

M&A are referred to the economist as non-contemporaneous event because the events do not occur on the same day across all entities (de Grassa & Masson, 2012). To indicate the changes of M&A impacts upon the dependent proxies, dummy variables are created to include pre and post years. M&A control variables discussed in the literature include size of company, risk,

age of incorporation, toehold (whether the acquirer has any ownership prior to M&A), related industry to the target and payment methods (cash, shares or mixed). Industry and country variables are also included to form Equation 2 below.

$$Div_{it} = \beta_0 + \beta_1Div_{i,t-1} + \beta_2Earn_{it} + \beta_3Earn_{it-1} + \beta_4Year_t + \beta_5Own_{i,t-2} + \beta_6GrowthSales_{it} + \beta_7Debt_{it} + \beta_8M\&A_{it} + \beta_{11}Country_i + \beta_{11}Industry_i + \eta_i + \varepsilon_{it} \quad 2$$

The main explanatory variable for investigation is large shareholders in period $t-2$ because the decision to M&A will precede the announcement period of $t-1$. As it is time-invariant and likely to be exogenous because at $t=0$, it has no impact to the period of measurement. A dynamic method suggested by Verbeek (2008) and Cameron and Trivedi (2009) is to use Hausman-Taylor (HT) estimator introduced by Hausman and Taylor (1981). HT also takes into consideration the fixed effect estimator by allowing the estimation of the effects of time-invariant variables even though they are correlated with α_i . HT estimator maintains the benefits of both the fixed effect estimator (correlation between individual effects and regressors) and also the random effect estimator (taking into account the time-invariant regressors). The main advantage of using HT estimator is that the model does not have to use external instruments. Furthermore, autocorrelation for HT does not cause inconsistencies in the estimated regressors (Wooldridge, 2002).

REGRESSION RESULTS

PP conflict using dividend ratios

Table 2 shows the regression results using HT analysis to answer the research hypotheses. All the models in Table 2, with different regression analyses, show similar results, especially in testing the main ownership variable of large shareholder.

The results generated in all three panels show that there are positively significant relationships between PP proxies with large shareholder in each model. The results are also significant even after controlling for the country and industry effects (columns 5, 6, 11, 12, 17 and 18). More dividends are allocated for payouts with higher shareholdings by the largest shareholder. These results are in accord with Hypothesis 1 that PP conflicts increase with large shareholders with M&A control variables in the model. These results are also consistent with other developed market studies which state larger shareholders do influence the dividend ratio policy (Faccio et al., 2001; Thomsen, 2005; Truong & Heaney, 2007). However, instead of saying the expropriation is lower with higher dividend, this thesis argues that the higher payout of dividend after M&A indicates higher expropriation.

Lags of dividends (t-1) are incorporated in the model. This is important as the lags are usually included as the control determinants of the dividend ratio policy to be implemented in the current year. These positively significant relationships are manifested across Panels B and C for

dividends to earnings and dividends to market capitalisation. This is supporting studies on payout ratio of listed companies in a fast-growing market where the current dividends are affected by their past and future prospects (Abdulrahman, 2007). However, insignificant relationships for the past dividend to cash flows may indicate that the dividend ratio policies may be based on published earnings rather from cash flows (Andres et al., 2009).

PP conflict using performance measurement (Tobin' sq)

As a robustness check, Hypothesis 2 using performance measurement based on Tobin's q as proxy for PP conflicts was tested using HT regression method shown in Table 3. Models 1-3 in the table show that HT regression with Tobin's q as the dependent variable with the large shareholder and other control variables. It is observed that the coefficients of large shareholders are negative, but they are insignificant. Only the year control dY0 shows significant coefficient across all models. This may show that as large shareholder increases, the performance of the companies tends to deteriorate. However, this remains inconclusive due to the insignificant p-values. It is also noted that the relationships between Tobin's q with the cash flow and company's growth were found to be negative but insignificant coefficient.

Conflicts between Shareholders in ASEAN 5 M&A

Table 2
Panel data OLS, fixed effects, Hausman-Taylor (HT) regression results for principal-principal conflicts (large shareholders)

	Panel A: Ratio of dividend to cashflow						Panel B: Ratio of dividend to earnings						Panel C: Ratio of dividend to market capitalisation					
	OLS	FE	RE	HT	HT (etry)	HT(ind)	OLS	FE	RE	HT	HT (etry)	HT(ind)	OLS	FE	RE	HT	HT (etry)	HT(ind)
Large Shareholder	0.3084 (4.43)***		0.3079 (4.12)***	2.0432 (2.27)**	1.7549 (2.1)*	2.0922 (3.33)***	0.0037 (2.94)***	0.0046 (0.1400)	0.0665 (0.9400)	0.0095 (0.1800)	0.0135 (0.2600)	0.0598 (3.97)***	0.0003 (2.42)***	0.0000 (0.2800)	0.0003 (2.42)***	0.0060 (2.49)**	0.0051 (1.93)*	0.0062 (1.94)*
LagDivCFlow	9.3200 (4.14)***	-0.4441 (0.1500)	7.9713 (3.57)***	-0.1050 (0.0300)	-0.1072 (0.0400)	-0.0202 (0.0100)												
LagDivEhuida							0.0756 (1.6200)	0.4599 (8.63)***	0.1001 (2.13)**	-0.4386 (9.32)***	0.4308 (8.77)***	-0.4338 (8.94)***						
LagDivMcap													0.0905 (2.13)**	-0.3030 (5.48)***	0.0905 (2.13)**	-0.2804 (5.69)***	-0.2838 (6.15)***	-0.2911 (6.20)***
Profitability	0.0000 (0.9800)	0.0000 (0.3700)	0.0000 (1.0300)	0.0000 (1.4000)	0.0000 (1.3400)	0.0000 (0.4200)	0.0046 (0.1400)	0.0665 (0.9400)	0.0095 (0.1800)	0.0135 (0.2600)	0.0598 (3.97)***	0.0000 (0.1200)	0.0000 (0.3400)	0.0000 (0.2800)	0.0000 (0.3400)	0.0000 (0.7300)	0.0000 (0.5400)	0.0000 (0.4200)
LagProfitability	-0.2374 (3.84)***	-0.0120 (0.1100)	-0.2204 (3.49)***	-0.1165 (1.3100)	-0.0464 (1.2800)	-0.0770 (0.9100)	0.3585 (3.31)***	0.2703 (2.08)**	0.0038 (0.1700)	0.0013 (0.5700)	0.0003 (0.1500)	0.2489 (2.13)**	0.0000 (0.3600)	0.0000 (0.6100)	0.0000 (0.3600)	0.0000 (0.2200)	0.0000 (0.4000)	0.0000 (0.4700)
TDTA	0.1871 (0.8100)	0.0933 (0.2500)	0.1682 (0.7500)	0.1136 (0.3700)	4.5822 (1.2100)	0.1329 (0.4600)	-0.0206 (2.80)***	-0.0171 (2.01)**	-0.0006 (0.1700)	-0.0195 (2.66)***	-0.0201 (2.64)***	-0.0199 (2.64)***	0.0000 (0.0200)	-0.0002 (0.2300)	0.0000 (0.0200)	-0.0003 (0.4800)	-0.0002 (0.3800)	-0.0002 (0.2700)
InTotalAssets	-0.0426 (1.3500)	-0.0465 (1.0600)	-0.0422 (1.3600)	-0.0449 (1.1700)	-0.0512 (1.4600)	-0.0464 (1.2800)	-0.0009 (1.5400)	-0.0015 (2.02)**	-0.0006 (1.0400)	-0.0013 (2.16)**	-0.0013 (2.09)**	-0.0013 (2.10)**	-0.0001 (1.7000)	-0.0001 (0.9900)	-0.0001 (1.7000)	-0.0001 (1.6000)	-0.0001 (1.2500)	-0.0001 (1.2400)
Sales YrGrth	0.1315 (0.0700)	1.1860 (2.57)**	0.0260 (0.0100)	6.6197 (1.4600)	5.8034 (1.1800)	6.8900 (1.5200)	0.0481 (1.4500)	0.0425 (1.2600)	0.0425 (1.2600)	0.2257 (1.6300)	0.2774 (2.26)**	0.2509 (2.00)**	-0.0008 (0.2300)	-0.0008 (0.2300)	-0.0008 (0.2300)	0.0177 (1.6000)	0.0174 (0.9600)	0.0192 (0.9100)
Beta	5.0338 (2.57)**	1.1860 (0.6000)	5.0357 (2.43)**	4.8198 (1.5300)	0.1175 (0.7400)	4.5822 (1.2100)	0.0732 (2.13)**	-0.0416 (0.1100)	0.0702 (2.00)**	0.0489 (0.4100)	0.0214 (0.2000)	0.0321 (0.2900)	0.0120 (3.22)***	-0.1900 (2.35)**	0.0120 (3.22)***	0.0127 (1.6000)	0.0099 (0.9600)	0.0100 (0.6700)
Ln Age	5.5357 (1.77)**	5.9176 (1.9400)	5.5970 (1.88*)	5.4472 (1.6400)	5.4647 (1.590)*	5.5622 (1.93)**	0.4089 (3.67)***	0.3821 (3.00)***	0.0905 (1.6500)	0.3702 (3.32)***	0.3578 (3.08)***	0.3611 (3.14)***	0.0108 (1.82)*	0.0108 (1.82)*	0.0108 (1.82)*	0.0137 (2.56)**	0.0137 (2.56)**	0.0137 (2.70)***
dYO	-0.4313 (0.6400)	-1.9400 (0.4700)	-0.3362 (0.4700)	-0.8327 (0.7200)	-0.6561 (0.5200)	-1.1584 (0.6800)	0.0097 (0.8800)	0.0106 (0.8800)	0.0106 (0.8800)	-0.0361 (0.8000)	-0.0332 (0.8700)	-0.0364 (0.9100)	0.0019 (1.5200)	0.0019 (1.5200)	0.0019 (1.5200)	0.0006 (0.1300)	0.0009 (0.1700)	0.0009 (0.1000)

Table 2
Panel data OLS, fixed effects, Hausman-Taylor (HT) regression results for principal-principal conflicts (large shareholders) continue

	Panel A: Ratio of dividend to cashflow					Panel B: Ratio of dividend to earnings					Panel C: Ratio of dividend to market capitalisation					
	OLS	FE	HT	RE	HT (ind)	OLS	FE	HT	RE	HT (ind)	OLS	FE	RE	HT	HT (crp)	HT (ind)
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
PaymentCash	13.3434 (1.2000)		35.7930 (1.6300)	11.9187 (1.0100)	32.5396 (1.3900)	0.0102 (0.0500)	0.0545 (0.2700)	0.7582 (0.9500)	0.6204 (0.9200)	0.6118 (0.8800)	0.0083 (0.3900)	0.0083 (0.3900)	0.0083 (0.3900)	0.0812 (1.0000)	0.0601 (0.6800)	0.0889 (0.8400)
PaymentShares	-2.9095 (0.5100)		5.1839 (0.5400)	-2.8100 (0.4600)	5.8844 (0.5100)	0.0693 (0.7200)	0.0788 (0.8000)	0.2882 (0.7700)	0.2286 (0.7200)	0.2571 (0.7700)	0.0049 (0.4500)	0.0049 (0.4500)	0.0049 (0.4500)	0.0219 (0.5800)	0.0153 (0.3700)	0.0075 (0.1500)
PaymentMixed	-4.4706 (0.7600)		1.3271 (0.1400)	-4.6216 (0.7400)	7.5014 (0.6500)	0.0643 (0.6100)	0.0665 (0.6600)	0.1819 (0.4800)	0.3042 (0.9000)	0.3351 (0.9400)	0.0012 (0.1100)	0.0012 (0.1100)	0.0012 (0.1100)	0.0137 (0.3600)	0.0188 (0.4200)	0.0085 (0.1600)
RelatedInd	0.0868 (0.0200)		5.8387 (0.7500)	-0.0683 (0.0100)	4.7053 (0.5200)	-0.0086 (0.1100)	-0.0331 (0.4200)	0.2426 (0.8000)	0.2262 (0.8800)	0.2488 (0.9300)	-0.0126 (1.5200)	-0.0126 (1.5200)	-0.0126 (1.5200)	0.0038 (0.1200)	-0.0006 (0.0200)	-0.0005 (0.0100)
Threshold	0.0144 (0.2100)		-0.0570 (0.4700)	0.0184 (0.2500)	-0.0723 (0.4900)	0.0009 (0.7500)	0.0010 (0.7900)	-0.0020 (0.4000)	-0.0005 (0.1300)	-0.0016 (0.3600)	0.0000 (0.2400)	0.0000 (0.2400)	0.0000 (0.2400)	-0.0002 (0.3900)	0.0000 (0.0900)	0.0000 (0.0700)
Country control					Included					Included					Included	Included
Industry Control					Included					Included						Included
Constant	-44.770 (2.64)***	-27.399 -0.4100	-112.511 (2.89)***	-43.609 (2.46)***	-152.2564 (2.91)**	-0.2534 (1.75)*	-0.2982 (2.04)**	-2.2045 (2.87)***	-2.3657 (2.42)**	-2.7449 (2.46)**	0.007011 -0.22	0.114052 -0.86	0.007011 -0.22	-0.152397 -1.4	-0.13613 -0.93	-0.254316 -0.92
Observations	669	669	669	669	669	669	669	669	669	669	669	669	669	669	669	669
R-squared/RHO	0.1400	0.0200	0.3847	0.2345	0.6326	0.0600	0.1528	0.8900	0.8397	0.8541	0.0683	0.4604	0.0683	0.8672	0.9049	0.9234
F-Stat/Wald Chi	6.15***	0.8400	28.47*	87.51***	33.38*	2.89***	10.21***	102.4***	95.3***	97.73***	2.87***	4.42***	2.87***	49.89***	53.55***	53.93**

Absolute value of t statistics in parentheses (* significant at 10%, ** significant at 5%, *** significant at 1%)

Table 3
Hausman-Taylor results for principal-principal conflicts using Tobin's q (performance measurement)

Model	(1)	(2)	(3)
	Tobin'sq	Tobin'sq	Tobin'sq
Lship	-0.027707 (0.63)	-0.048222 (0.68)	-0.040557 (0.65)
TDTA	-0.000140 (0.13)	0.000122 (0.10)	0.000094 (0.08)
lnTotalAssets	0.001112 (0.40)	0.001120 (0.41)	0.001123 (0.42)
CashtoTA	-0.000791 (0.79)	-0.000808 (0.75)	-0.000761 (0.73)
Sales1YrGrth	-0.000428 (0.80)	-0.000441 (0.81)	-0.000442 (0.83)
LnAge	-0.017414 (0.16)	0.049166 (0.38)	0.038532 (0.31)
dY0	-0.089397 (2.17)*	-0.087664 (2.14)*	-0.087626 (2.17)*
Beta	-0.046153 (0.23)	-0.181605 (0.53)	-0.134644 (0.47)
LnValue Transacton	0.070327 (1.31)	0.086045 (1.16)	0.081584 (1.17)
Payment Cash	-0.430581 (0.42)	-0.580869 (0.44)	-0.456511 (0.38)
Payment Shares	0.168866 (0.41)	0.138078 (0.27)	0.157031 (0.32)
Payment Mixed	0.104961 (0.26)	-0.161364 (0.24)	-0.121782 (0.19)
Related Ind	0.081688 (0.24)	-0.002332 (0.01)	0.024727 (0.06)
Toe hold	0.001346 (0.28)	0.000400 (0.07)	0.000683 (0.12)
Country		Included	Included
Industry			Include
Constant	1.742883 (0.94)	2.693747 (0.75)	2.425652 (0.73)
Observations	713	713	713
Number of IDCODE	272	272	272

CONCLUSION

This paper details the results of the research and analyses the information and statistical methods using a HT analysis by applying ASEAN 5 M&A data. The relationships between PP conflicts, ownership, financial and M&A variables have been elaborated in detail as well. Overall, this study supports the indication that PP conflicts are significant in ASEAN 5 acquiring companies using three different measurements of dividend ratios. The results from multivariate analysed the proxies of PP conflicts using both dividends and performance measurement also suggested that large, controlling shareholders seemed to be expropriating minority shareholders during M&A.

Some of the limitations of this study are having an uneven distribution of the number of effective M&A deals among the five countries included in this study. It is noted that the sample data have low number of effective M&A deals in Indonesia and Philippines, while Malaysia dominates by having the highest number of effective M&A deals. Data for this study were mainly sourced from Securities Data Corporation's (SDC) Platinum™ *Worldwide Mergers & Acquisition Database* which comprises of information collected and gathered from annual reports of public-listed companies in the five countries from the year 1997 to 2011. Although there is a requirement for disclosure of the top 20 shareholders in the annual reports of public-listed companies in the ASEAN 5 countries, there is no restriction for using nominee names or corporations as shareholders.

Thus, as a result of this leniency, many large shareholders use the nominee account name to be displayed in the top 20 shareholders in the annual reports of the companies.

Moreover, this paper only analysed PP conflicts in the perspective of acquiring companies. The impacts of PP conflict on target companies are therefore not explored and thus represent an opportunity for further research. Again, data collection may be more difficult given that not all of the target companies are public-listed companies. If an M&A involves a private company as the target entity, information on the target company may be difficult to obtain.

In summary, the region that comprises ASEAN 5 countries have been identified as a region that provides exceptional opportunities for businesses and investors. The buoyant economies of the five countries bring along a wave of corporate restructuring activities which include M&A. These M&A deals may be done with good intention of expanding the business and eventually enhancing the shareholders wealth. However, it should also be acknowledged that scrupulous and dishonest directors or shareholders may take advantage of an M&A deal to benefit themselves. At the same time, many M&A deals are too complex and complicated for small and minority shareholders to understand, and thus these directors or shareholders may escape while expropriating more of companies' income for their own benefits.

This research can be extended by conducting further studies on PP conflicts using other than M&A as a point of

event study. M&A is usually not the only major corporate restructuring exercise a corporation may undertake. Expropriation by the large shareholders may occur without involving M&A, and PP conflicts may be evidenced and prevalent in such cases. In addition, companies may also undergo major restructuring as a result of a significant individual investment project, which may attract PP conflicts. These areas are not covered in this paper and may be explored for further research.

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Big City Millennial Workers in Indonesia and Factors Affecting Their Commitment to the Organisation

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ABSTRACT

In this contemporary world, when there is a drastic shift in the demographic features of the workforce, understanding millennial workers' expectations of work becomes an important agenda for the continuity and success of the company. Outside Indonesia, researchers found millennial workers wanted to have high salaries, comprehensive benefit packages, rapid career development opportunities, as well as work location that is near to where they live (Robert Half International and Yahoo! HotJobs, 2008), personal life and an opportunity to grow (Baldonado & Spangenburg, 2009), and career advancement opportunities, and work-life harmony and good relationships with colleagues (The GMP Group & Temasek Polytechnic, 2009). In Indonesia, Sitepu (2012) found nature of the job, supervision and promotion opportunities as three main factors that made millennial workers stay at work. This study was carried out to enrich the findings above, focusing on millennial workers in Jakarta, a big city of Indonesia. The findings are: 1) simultaneously eight occupational factors which are Salary, Benefit, Promotion Opportunities, Supervision, Relationship with Colleagues, the Job Itself, Job Flexibility, and Work Location positively and significantly affected Organisational Commitment, and 2) only four factors (benefits, promotion opportunity, work flexibility and work location) partially affected the Organisational Commitment positively and significantly.

Keywords: benefit; big city millennial workers; organisational commitment; promotion opportunity; relationship with colleagues; salary; supervision; the job itself; work flexibility; and work location

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INTRODUCTION

Meister (2012) said that job hopping is the 'new normal' for millennial workers born

between 1977 and 1997. In his research, 91% of the 1,339 respondents who were young employees or recent graduates admitted they stayed in a company not more than three years before looking for another job which fits with their values and personal goals. These conclusion are supported by research conducted by Parsons (2012) which found that the turnover trend in young employees (Generation Y or The Millennial, aged 15-35 years) is higher than the oldest generation and expected to increase significantly year by year.

In Indonesia, a census done by the Central Bureau of Statistics in 2010 showed that 79.75 million (33.56%) of the total population of Indonesia were the Millennial. The fact above provides a challenge for HR practitioners in Indonesia, in managing a drastic shift in the demographics of the workforce. Generational differences lead to differences in expectations, as well as demands and expectations of the job. Most companies may have successfully implemented strategies to retain their best employees from the Generation of Baby Boomers and Generation X. In order to retain employees who come from Generation Y, however, companies would require a different approach. Therefore, knowing the dimensions of the work that drives the Generation Y employees to commit to the organisation is a crucial step for the company's top management in designing HR strategy that is capable of effectively managing Generation Y employees so that issues such as voluntary labor turnover in the future can be minimised. Therefore, to understand all the Millennial's perspective

demands and expectations at work becomes an important agenda that must be considered for the continuity and success of the company.

There are several studies on work factors and organisational commitment of The Millennial. A research conducted by Robert Half International and Yahoo! HotJobs (2008) with 1,007 respondents aged 21-28 years, using eleven dimensions that are considered reflecting the expectations of millennial workers, found that majority of The Millennial wanted to have high salaries, comprehensive benefits package, rapid career development opportunities, as well as work location that is near to where they live. Baldonado and Spangenburg (2009) conducted a similar study with students of the University of Hawaii as their respondents and discovered two major dimensions influencing the organizational commitment of The Millennial, which are personal life and opportunity to grow. Spectrum Knowledge, Inc. and Career Center at Cal State Fullerton (2009) found that appreciation given by the organisation, work promotion and work-life balance, while another research conducted by The GMP Group and Temasek Polytechnic (2009) with respondents of 1,541 students and 502 millennial workers in the state of Singapore found career advancement opportunities, work-life harmony and good relationships with colleagues as the motivators for The Millennial to remain in the organisation.

In Indonesia, Sitepu (2012) did a study on 114 millennial workers by using Spector Job Satisfaction Survey instrument, and

found three dimensions of employees' job satisfaction which have significant and positive relationships with their commitment to the organisation: nature of the job, supervision, and promotional opportunities. Meanwhile, Salim (2014) found that perceived supervisor's support on work-life balance has a positive and significant relationship with organisational commitment of the millennial.

Although there have been a number of studies in Indonesia related to the organisational commitment of millennial workers, none has specifically examined the factors that influence commitment to the organization of millennial workers in big cities. Big cities provide a wide range of employment alternatives that may be more appropriate to the millennial expectations. Based on the results of informal interviews with several young co-researchers working in small towns (such as Klaten, Surakarta and Pekanbaru) in Indonesia, not having many alternative jobs "forced" the millennial workers to commit to their organisation because they do not have many other job options.

Review of the past literature showed eight factors affecting organisational commitment of millennial workers are Salary, Benefit, Promotion Opportunities, Supervision, Relationship with Colleagues, the Job Itself, Work Flexibility and Work Location. The purpose of this confirmatory study was to quantitatively examine the model that had been developed based on literature study findings, which included: (1) to determine which occupational

factors have significance positive effects on organisational commitment of big cities millennial workers in Indonesia, and (2) to identify the dominant factors affecting the organisational commitment millennial workers of big cities in Indonesia. The results of the research will enrich the construct theories of millennial and organisational commitment in the context of organisation in Indonesia.

MATERIALS AND METHODS

Since the aim of the study is to examine the relationship and the effects of variable dimensions of the work on organisational commitment, the approach used is quantitative with survey method, a single cross-sectional. The unit of analysis of this study is the individual employees. Meanwhile, the population of the study comprised undergraduate and graduate students from the part-time class in an old private school of management in Jakarta, Indonesia. A total of 239 participants were selected as the samples for the survey based on the following criteria: (1) have been or are working in Jakarta or other big cities in Indonesia, and (2) are in the age group of 15 to 33 years or the birth years of 1981-1999 (generation Y/Millennial).

The survey was done by using personally administered questionnaires. The questionnaire used 6-point Likert scale with a total of 37 statements indicating the observed variables of the nine latent variables measured. Questions for eight independent variables were developed from the tools used by Robert Half International

and Yahoo! HotJobs (2008), Baldonado and Spangenburg (2009), The GMP Group and Temasek Polytechnic (2009) and Sitepu (2012). While questions for the dependent variable were developed based on Mowday, Porter and Steers (1982).

From the data collection obtained, out of a total of 164 questionnaires (return rate 63%), 151 questionnaires were eligible to process. Figure 1 shows that the research model consists of the variables and hypotheses to be tested.

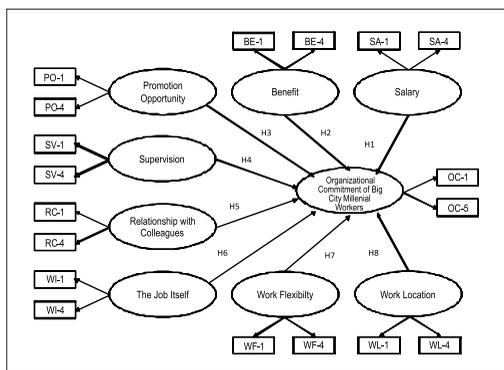


Figure 1. Structural model of the study

- H₁ : Salary has a positive and significant effect on the organisational commitment of big city millennial workers in Indonesia
- H₂ : Benefit has a positive and significant effect on the organisational commitment of big city millennial workers in Indonesia
- H₃ : Promotion Opportunity has a positive and significant effect on the organisational commitment of big city millennial workers in Indonesia
- H₄ : Supervision has a positive and significant effect on the organisational

commitment of big city millennial workers in Indonesia

- H₅ : Relationship With Colleagues has a positive and significant effect on the organisational commitment of big city millennial workers in Indonesia
- H₆ : The Job Itself has a positive and significant effect on the organisational commitment of big city millennial workers in Indonesia
- H₇ : Work Flexibility has a positive and significant effect on the organisational commitment of big city millennial workers in Indonesia
- H₈ : Work Location has a positive and significant effect on the organisational commitment of big city millennial workers in Indonesia
- H₉ : Salary, Benefit, Promotion Opportunity, Supervision, Relationship with Colleagues, The Job Itself, Work Flexibility, and Work Location simultaneously have a positive and significant effect on the organisational commitment of big city millennial workers in Indonesia

RESULTS

Test the effect of the eight occupational factors on organizational commitment simultaneously

In order to see how much the influence of the independent variables together or simultaneously to changes in the value of the dependent variable, Test F was conducted. Based on the test results in Table 2 F, a significant value of 0.000 (<0.05) was obtained. Thus, it was concluded that

the hypothesis is accepted and there is at least one of the eight predictor variables consisting of Salary, Benefit, Promotion Opportunities, Supervision, Relationship with Colleagues, the Job Itself, Work Flexibility and Work Location, which affect Organisational Commitment positively and significantly.

Table 1
Test result of eight occupational factors (X1-X8) simultan effect on organisational commitment (Y)

ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1942.756	8	242.844	21.416	.000a
	Residual	1610.211	142	11.340		
	Total	3552.967	150			

a. Predictors: (Constant), Salary, Benefit, Promotion Opportunity, Supervision, Relationship with Colleagues, The Job Itself, Work Flexibility, Work Location (Adj.)

b. Dependent Variable: Organisational Commitment

Test result of eight occupational factors (X1-X8) simultan effect on organisational commitment (Y)

Test the effect of the eight occupational factors on organizational commitment partially

To measure the partial relationship and influence of eight occupational factors (X1-X8) on organizational commitment (Y), t test was done.

Table 2
Test result of eight occupational factors (X1-X8) partial effect on organizational commitment (Y)

Coefficients ^a						
Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	.083	2.247		.037	.971
	Total Salary	-.011	.085	-.010	-.131	.896
	Total Benefit	.407	.092	.338	4.420	.000
	Total Promotion Opportunity	.247	.083	.222	2.988	.003
	Total Supervision	.184	.104	.133	1.777	.078
	Total Relationship with Colleagues	-.205	.123	-.116	-1.672	.097
	Total The Job Itself	.199	.112	.136	1.772	.079
	Total Work Flexibility	.272	.089	.193	3.062	.003
	Total Work Location (Adj.)	.235	.098	.151	2.396	.018

a. Dependent Variable: Total Organisational Commitment

The number of respondents in the research samples (n) is as much as 151 people, then by degrees of freedom (df) = n - k and level of significance (α) = 0.05, and the value of the t-table is 1.976.

Based on the results of the t test, Hypothesis 2, 3, 7 and 8 are accepted. Partially, only four variables have a positive and significant effect on Organisational Commitment (t-stat > t-table, with a significant level < 0.05). The four variables are benefit, promotion opportunities, work flexibility and work location.

Determination test of eight occupational factors on organisational commitment

Statistical calculation results in Table 3 indicate that the coefficient of determination that has been adjusted (Adjusted R2) is 0.521. It means that eight occupational factors studied can influence the variation of Organisational Commitment of 52.1%. The remaining 47.9% is determined by other variables that are not proposed in this research model.

Table 3
Test result of determination of eight occupational factors (X1-X8) on organizational commitment (Y)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.739a	.547	.521	3.36742

a. Predictors: (Constant), Salary, Benefit, Promotion Opportunity, Supervision, Relationship with Colleagues, The Job Itself, Work Flexibility, Work Location (Adj.)

DISCUSSION

Compared to Tolbize (2006) who found that money did not necessarily motivate members of Gen X, the absence of money might lead them to lose motivation, this research interestingly found that benefits significantly and positively influenced the organisational commitment of big city millennial workers in Indonesia, while salary was not. The results are consistent with the studies of The Bush School of Government and Public Service (2009) and MetLife (2012), which found that the factor of monetary compensation or salaries is no longer the most important motivational tool in creating job satisfaction and organisational commitment of Generation Y. Both studies

recommend companies to award the millennial workers in the form of benefits to raise their job satisfaction and organisational commitment. The recommendation is based on the increased consciousness of millennial workers on the need for the company to provide support when they experience illness or accident. Moreover, the cost of healthcare in big cities is now more expensive, which may not be met from the salaries they earn. In addition, the millennial workers also do not want to experience the condition as is often experienced by their parents who have worked hard but still face difficulties during their retirement. Another study by College (2009) found benefits as one of the top criteria for accepting jobs.

In providing the benefit for the millennial workers, companies must pay attention and ensure the fulfillment of the principle of justice or fairness (Robbins & Judge, 2013), the factor that is highly considered by the millennial workers. It is indicated by the highest mean value of the statement “the benefit I receive is in accordance with my position” (Mean score: 4.05) and “the benefit I receive already competitive compared to other similar companies in the same position” (Mean score: 4.01). This finding is in line with Srinivasan (2012), who also found equitable pay and fringe benefit as the dominant motivational factors of the Millennials. According to Robbins and Judge (2009), employees perceive their organisations as just when they believe the outcomes they have received and the way in which the outcomes were received are fair.

The second factor found to significantly and positively influence the organisational commitment of big city millennial workers in Indonesia is promotion opportunity. This finding supports a number of previous research that revealed promotion opportunities have always been coveted by the majority of Generation Y employees (Robert Half International and Yahoo! HotJobs, 2008; Baldonado & Spangenburg, 2009; The GMP Group and Temasek Polytechnic, 2009; Spectrum Knowledge, Inc. and Career Center at Cal State Fullerton, 2009; Sitepu, 2012). According to Bosco and Bianco (2005) and Gursoy et al. (2008), millennials thrive on recognition and promotions. Gursoy, Maier and Chi (2008) found Gen Y values professional

development. Potential for advancement is also one top criterion for millennial workers in accepting jobs (College, 2009). Millennial workers see promotion as a symbol of trust, recognition and appreciation for their relevant abilities or skills to occupy higher level positions. Promotion is seen as manifestation of a person’s need to continue to grow and develop. In related to promotion opportunity, clarity of career path is very important for the millennial workers. It is indicated by the highest mean value of the statement “My work now has a clear career path” (Mean score: 3.95). Millennial workers need certainty about what will happen to their future in the company. They need to be informed about the career path systems, performance evaluation and any requirements that must be met to get promoted. Thus, the management should make a clear career planning and ensure that the policy is known and understood by all employees and apply it in an open, objective and fair way. By having a complete picture about their future in the company will encourage the millennials to increase their productivity and commitment to the organisation.

Millennial workers prefer not only a clear but also a flexible career path because their priority is work-life balance (Smola & Sutton, 2002; Carless & Wintle, 2007; Ott, Blacksmith, & Royal 2008). Millennials may desire more flexible working conditions and hours such as no objection for working late but reluctant to working early in the morning (Simmons, 2008). They see work in flexible terms (especially where and

when work is done) to accommodate their desire for work-life balance (Randstad Work Solutions, 2007; Simmons, 2008). The next findings of this research support this. Millennial workers consider work flexibility as another factor that makes them committed to the company. It is indicated by the high mean value of the statement "I get freedom in determining the procedures that will be used to carry out the duties of my job" (Mean score: 4.29) and "my company provides arrangements entered flexible working hours to employees during fulfill the applicable amount of working time" (Mean score: 4.07). Millennial workers often do not have sharp boundaries between professional work and social life. Millennials rely heavily on technology in integrating their work with their personal and social life (Robert Half International and Yahoo! HotJobs, 2008; Baldonado & Spangenburg, 2009; The GMP Group and Temasek Polytechnic, 2009; Net Impact, 2012). Millennials feel rewarded by work arrangements that offer them a flexible work and technological support (Martin, 2005). In this research, it is indicated by the high mean value of the statement "the company provides a means of access to technology that can help my work and communicate with colleagues" (Mean score: 4.48). Millennial workers live in the era of rapid revolution of information and communication technology. They are very familiar with the internet, smart phones, tablet computers and actively involved in social media networks such as Skype, Whatsapp, Myspace, LinkedIn, Twitter and Facebook (Zemke et al., 2000; Martin

& Tulgan, 2001; Eisner, 2005; Howe & Strauss, 2010). Millennials using technology to assist them in completing various tasks of work, communication and developing their potential. In contrast to Generation X or Baby Boomers who are not too concern with that aspect, since during their time, technology was not as advanced as today's. Based on the research findings, to make the millennials commit to the organisation, a company must provide technological support that ensures the millennials are able to balance their work and personal or social life.

Another interesting finding of this study is the work location, which turned out to be one of the factors influencing the organisational commitment of big city millennial workers in Indonesia. Millennials are concerned about the ease of access to work sites, as indicated by high score for the statement, "my company has an accessible location" (4.62). Millennials also prefer if the work location is not far from where they live, "location of the company where I work not far from where I live (Mean Score: 4.17). Work location also turned out to be a status symbol for millennials "I currently have a job that is located in the central area of the elite or business centers that can improve my social status (mean score: 4.15). In addressing these findings, it would be a positive thing if the company already has a location with good accessibility levels or located in the centre of the city. For companies located far from the city or are not easy to reach (for example, a factory that is located in an industrial area), the

management should provide transportation assistance for the millennial workers such as bus service with fully leveraging technology, real-time transit applications that connect the Millennials with community amenities through smartphone fare payment and the provision of WiFi and 3G/4G (APTA, 2013). Transit allows Millennials to work as they travel. These benefits of public transit need to be fully leveraged by the company in acquiring the millennial talents.

The number of millennials workers is predicted to rapidly increase in the next 5-10 years to replace the generation of Baby Boomers and Generation X who will soon retire. The research enriched the study of generational differences in organisational commitment by the finding that millennials are both intrinsically and extrinsically motivated. This differs from Gen X that appears to be primarily intrinsically, but not extrinsically motivated (Krahn & Galambos, 2014). This research finding is confirmed the study of Giancola (2008) which indicated the most valued rewards by the millennials are learning and development opportunities and work-life balance. They are just like the Gen X who also valued flexible work arrangements and skill development.

CONCLUSION

This case study found that simultaneously, at least one of the eight predictor variables consisting of salary, benefit, promotion opportunities, supervision, relationship with colleagues, the job itself, work flexibility and work location, had a positive

and significant effect on the dependent variable Organisational Commitment of big city millennial workers in Indonesia. The coefficient of determination that has been adjusted (Adjusted R²) is 0.521, which means eight variables studied for occupational factors can influence the variation of Organisational Commitment of 52.1%, while the remaining 47.9% is influenced by other variables that are not proposed in this research model. Partially, only four variables had a positive and significant influence on Organisational Commitment, and these are benefits, promotion opportunities, work flexibility and work location.

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Accounting System and Accountability Practices in an Islamic Setting: A Grounded Theory Perspective

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ABSTRACT

The purpose of this paper is to provide theoretical insights on the accounting and accountability practices of Islamic religious non-profit organisations. A case study of an Islamic boarding school in Aceh, Indonesia, was conducted and a grounded theory is used in this research. Data were generated from interviews with people inside and outside of the organisation, review of documentary materials and observation of the daily activities of the organisation. The study found that the financial report is seen by the management of the Islamic boarding school as an instrument that plays a very significant role in enhancing accountability of the organisation. Accounting activities are viewed as activities that have no contradiction to the religious belief and also the missions of the organisation. However, accounting practices in this institution are less developed and the financial accountability demonstrated by the management is still far from what is expected by society.

Keywords: Accounting, accountability, Islamic boarding schools, non-profit organisation, religious organisation

INTRODUCTION

There has been growth in research concerning accounting and accountability in religious organisations (see Laughlin, 1988, 1990; Rahim & Goddard, 1998; Jacob & Walker, 2004; Booth, Sinoo, 2004, Carmona & Ezzamel, 2006; Afifuddin & Nabiha, 2010). These studies have attempted to understand accounting and accountability of organisationally situated practices. However, majority of the published studies have particularly focused mainly on Christian organisations. Only a small

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number of studies have dealt with other religious organisations including Islamic religious organisation, especially those of educational institutions. Furthermore, the issues of accounting and accountability in Islamic religious organisations have generally been unexplored in accounting academic literature (Ezzamel & Carmona, 2006). This lack of research on accounting and accountability practices within Islamic institutions was a significant lacuna in the accounting literature motivates this study. Thus, this study attempts to investigate the accounting and accountability practices in an Islamic religious institution called *Pesantren* [an Islamic boarding school] in Aceh, Indonesia.

In general, religious-based institutions, including Islamic organisations, have very significant roles in any society, especially in provision of services for the community. One of the most important organisations in Indonesia is *Pesantren* which provides education services at minimal cost for students. The *Pesantren* institutions have received a lot of fund both from government and society at large. However, there are concerns over the administrative process of the organisations, including their accounting practices which are not up to the expected standards.

Pesantrens are mainly owned by foundations and private owners who tend to control a sizeable proportion of human, financial and other resources of the society. As such, the survival of the *pesantren* is contingent on the support and trust of the public. With regards to the accounting

practices of the *Pesantrens*, information regarding financial accountability in these organisations has been lacking. There are also a lot of anecdotal evidence which suggests the lack of public accountability and transparency in these organisations. Hence, the accounting and accountability practices of a religious non-profit organisation were examined in this paper.

The findings of this study are hoped to provide an understanding and explanation of the accounting and accountability practices in *Pesantrens*. As such, this study contributes to the theory and practice of management accounting in religious-based organisations, especially in the Islamic organisations.

The rest of the paper is organised as follows: Section 2 provides the review of relevant literature. Section 3 discusses the methodological approach on which the analyses of the study are based. The findings are discussed in Section 4, and this includes the overview of the case organisation, role of accounting of the *Pesantrens*, internal control and financial management, accountability relationship, as well as the role of board (foundation committee) in enhancing the accountability of the investigated Islamic religious-based organisation. Finally, the conclusion and implications of the findings are provided in the last section of the paper.

LITERATURE REVIEW

An extensive study conducted in this area was undertaken by Laughlin (1988, 1990). His study demonstrated how accounting

practices interact with religious belief systems held by the participants of the Church of England. Laughlin viewed that accounting practices are closely related to the financial elements of the organisation. Laughlin (1990) also noted that the underlying structure of the financial accountability in the main Church-based units was dominated by the sacred-secular divide. In this context, he argued that all Church organisations are dominated by this perception.

Laughlin (1990) noted that accounting and accountability matters are seen as secular and secondary to the organisations. However, the findings of Laughlin (1990) concerning the sacred-secular divide of accounting in church, are opposed by Jacobs and Walker (2004) as the findings of their study showed that the sacred-secular divide is not supported in the research of accounting and accountability practices within the Iona community. Jacob and Walker (2004) noted that within the Iona community, accounting served to support the sacred practices. Thus, accounting and accountability in this community are regarded as part of the observance by its members of the rules and as an integral component of their Christian practices.

Another research on Churches was conducted by Siino (2004) who did a survey of Baptist churches. The study revealed that there is a lack of control system in these organisations that could hinder financial abuses. More than half of those surveyed did not have a formal codified financial

procedures. In fact, there are also churches that did not demand written documentation for disbursement of funds nor formal explanation for variance in their budget.

Furthermore, Quattrone (2004), who examined the accounting and accountability practices in the society of Jesus, Italy, during the sixteenth centuries, noted that “the emergence of accounting and accountability practices was tightly linked to the absolute ideology of Roman Catholic doctrine of the Counter-Reformation” (Carmona & Ezzamel, 2006, p. 119). It is argued that such doctrine was the site of compromises involving theological, religious, political, institutional and social dimensions.

Another study investigating accounting and accountability practices, especially concerning Islamic religious organisations, was undertaken by Rahim and Goddard (1998). They (1998) conducted case studies of two State Religious Councils in Malaysia. The objective of their study was to examine accounting practices in these two organisations by using an interpretive methodology. The findings of Rahim and Goddard (1998) indicated that the use of sophisticated accounting techniques is minimal in the two aforementioned Islamic religious organisations. The role of accountants in these organizations is meaningful only as an organisational practice. Accounting is used only for recording of financial information and not for enhancing the accountability of the organisations. As such, the role of the accountant has been reduced to the role

of bookkeeper. In addition, there is no separation between accounting works and other religious activities in both organisations because they need accounting to function properly to financially organise the activities, which could not otherwise be properly carried out. Such studies of Islamic religious organisations have indicated the existence of the interaction between religious belief systems and accounting practices.

Furthermore, Jayasinghe and Soobaroyen (2009) presented an analysis on how accountability is perceived by the people within the Hindu and Buddhist based religious institutions. The accountability mechanism is seen as sacred elements which are influenced by power and patronage relationships, trust and loyalty, and social status. The accountability within religious organisations is largely visible as an informal and social practice rather than a stakeholder-oriented rational mechanism.

METHODOLOGICAL APPROACH

This study investigated a *pesantren* in Aceh, Indonesia. The data for this study were mainly derived from semi-structured interviews, documents and observations. The case study approach was used in this study since it enables the use of various sources of data which allow for more indepth analysis and greater understanding regarding the accounting and accountability practices of the case organisation (see Lightbody, 2005). Interviews were

conducted with key informants, both inside and outside of the organisation case, who have some leadership responsibilities in this entity. They are the directors of the case organisation, unit managers from different divisions, students, members of foundation committee, as well as directors of government agencies and directors of institutional donors who frequently provide donations for local Islamic religious organisations and Muslim scholars. In total, 19 people were interviewed and 33 interviews were carried out. This is because some people were interviewed more than once. Most of the interviews lasted about one hour. All the interviews were recorded and transcribed. The empirical study started with a preliminary visit to the organisation in 2007. In order to ensure the consistency of the accounting and accountability practices of the case organisation, the researchers once again conducted a field visit in 2015. The actual fieldwork was done over the six-month period in 2007. Further interviews for validation were conducted in 2009 and 2015. A list of the interviewees is given in Appendix 1.

A grounded theory approach was used in this research. The data analysis and theoretical insight were based on the principles of grounded theory. Grounded theory is defined as “a qualitative research method that uses a systematic set of procedures to develop an inductively derive grounded theory about a phenomenon” (Lightbody, 2005, p. 7).

FINDINGS AND DISCUSSIONS

Overview of the Case Organisation

Pesantren Peace¹ is one of the Islamic boarding schools in Aceh, Indonesia, which was established in 1961 under the management of Yayasan Kita (Kita Foundation).² The main activity of the *Pesantren* is to provide the educational services for both junior and senior high schools. The schools are open to the public to both male and female students from various family backgrounds. As a modern *Pesantren*, apart from teaching the *kitab kuning* (a classical Islamic textbook), this institution adopts the standard curriculum set by the Department of Religious Affairs of Indonesia with a class size of 30 students. Although the classes are conducted mainly using the Indonesian Language, the students are highly encouraged to use Arabic and English when they interact with each other.

In 2008, Pesantren Peace had nearly 2,000 students, of which 54% were female students. The *Pesantren* has 178 teachers with 84% of them are temporary teachers and only 14% are permanent teachers. All the teaching staff, except for the government officers, are paid around Rp500.000 (USD50) to Rp2.000.000 (USD200) monthly by the management of the *Pesantren*. Only the teachers with a minimum educational

qualification of bachelor degree are allowed to teach, while for the administrative staff must have a high school certificate. Although the Indonesian Law No. 20/2003 stated that the first nine years of education are compulsory to be attended by all citizens and they are waived off from any tuition fees, the students attending this *Pesantren* still have to pay a very minimal fee. This practice has been supported by the survey conducted by the Asian Development Bank Country Report (2006), which found that 12% of school revenues of the public schools at the secondary level in Indonesia came from the community in the form of various school fees.

As far as the management of the *Pesantren* is concerned, this organisation has historically been managed by people who have a religious education background, but with very little knowledge of financial management and accounting (see Sulaiman, 2007). Surprisingly, Pesantren Peace has been managed by a director who exercises overall control of the Pesantren and its affairs. The director's educational background is not in Islamic studies, but he is a dedicated and successful person who has experiences in managing a business organisation. This is one uniqueness of this particular *pesantren* which perhaps cannot be found in other *pesantren*. In managing this *Pesantren*, the director is assisted by a deputy director, who holds a degree in the Islamic studies, a secretary, and a treasurer (Head of Finance Section). Almost all of the unit managers were graduates of Pesantren Peace, and none of them graduated from

¹ The name of the case organisation has been changed to ensure confidentiality.

² Kita Foundation refers to the name of the foundation that oversees the Pesantren Peace. Note that the name of the foundation has been changed to ensure confidentiality.

business and accounting schools. The *Pesantren* also has an Advisory Board, comprised of ten senior persons who have been involved in the activities of the organisation for years and their duties are to provide direction and guidance for the management in various aspects, except for financial matters. For their services, they are not provided with any compensation, and they work on a voluntary basis.

In order to finance the operationalisation of the institution, apart from the collected tuition fees from the students, *Pesantren Peace* has received considerable funding from the local (district) government and public donations, both individual and organisational donors.

The Role of Accounting

The field of accounting in non-profit organisations, particularly religious organisations has been the subject of some previous studies (see Laughlin, 1990; Rahim & Goddard, 1998). Its purpose is to obtain an instrument for internal and external stakeholders that can be used to manage and monitor the development in accordance with the organisation's mission. For example, when a non-profit organization receives a donation, it is essential to quickly record the amount and report how it is spent. It is argued that, ideally, an accounting and financial reporting system leads to better decision making for internal management and external stakeholders such as government and donors. Furthermore, as mentioned in the literature, accounting information has long been used as the main accountability

tool in many organisational activities, regardless of their objectives and missions.

In the case of *Pesantren Peace*, the management sees accounting as an instrument that plays a very significant role in the organisation. This is reflected in the explanation of the human resources manager:

“Accounting is indeed very necessary for an organization, like in this *Pesantren*. I do not see accounting only from the viewpoint of working professionalism or the standards used. Even in Islam, as a matter of fact, accounting, record, report, etc. are very important. No matter how well a person carries out a task, there would be a bad assumption from other parties if it was not accompanied by good recording.”

He further noted that:

“I believe accounting is absolutely important and it is a part of religious activities because Islam encourages recording. It can be established if supported by a good accounting, as well as good transparency. I think it is very crucial.”

This view is also reinforced by the director of the *Pesantren* when he said:

“In the past this *Pesantren* was in a mess and unorganized because

of poor accounting practices. They were only concerned about the religion. I think accounting is also part of the religion.”

Thus, for the management of Pesantren Peace, accounting activities are viewed as activities that have no contradiction with the *Pesantren* mission and it is perceived as an integral component of managing the institution or in other words sacred in nature. Thus, in practice, accounting is not treated as irrelevant to the organisation’s mission as documented in previous research conducted on some religious organisations.

In short, a sacred-secular divide, where accounting is viewed as secular activities, is not applicable to Pesantren Peace. This departs from the major insights gained from previous research such as the study of Church of England conducted by Laughlin (1988, 1990) in the sacred/profane dichotomy. However, it is similar to the concept of accounting activities identified in the previous research of Islamic religious organisations conducted by Rahim and Goddard (see Rahim & Goddard, 1998).

Contrary to the belief of the management of Pesantren Peace concerning the role of accounting, in practice, the accounting in this organisation does not function maximally. Accounting activities are undertaken by the people who are not professional accountants, but are primarily dedicated people who have administrative skills since the *Pesantren* does not employ any professional accountant. The director said that:

“The finance unit manager is not good at accounting, but I catch her based on my experience in the industry I was involved... I have to say that there are some recording are not suitable. Therefore, I try my best to improve it. Hopefully, it is getting better.”

Thus, even though accounting is considered as playing an important role in supporting the achievement of the goal of Pesantren Peace, the management does not pay enough attention to their accounting activities since they do not have skillful accountants or accounting professionals. This can also be seen from the system used, in which all transactions are still processed manually even though Pesantren Peace has huge assets to be managed. As a result, the accounting section is unable to implement good accounting practices.

Pesantren Peace produces both monthly and annual reports, but the format and the contents of the reports indicated a low level of accounting system and practice. The reports only include simple cash income and expenditure. In other words, the reports only provide information about the transactions and the cash balance during a reporting period. The reports rarely, if ever, are used to evaluate past performance. There is no other financial report prepared by the finance section. There is no accounting procedure manuals either regarding accounting practices. The financial reports provided are used for both demonstrating its financial accountability

and helping the decision making process. However, in practice, it focuses more on accountability to its financial sources/donors in order to make itself accountable for its actions. This is reflected in the following comments:

“Financial report is basically used to show financial accountability to the donors and also to help decision making of what to do with the existing financial situation” (Human Resources Manager).

“Financial reports are used to make decisions and also for the accountability to the Foundation committee and the donors. For instance, the construction of the building should be delayed because of financial problems [insufficient finance]” (Director).

Thus, the accounting practices in the *Pesantren* mainly focused on the control of receipts and disbursement of funds through providing monthly and annual cash receipts and cash disbursement reports. There is no consolidated financial report providing the overall financial condition of *Pesantren Peace*. Seen in this light, the format used is likely to be similar to what it is called fund accounting (see Gross, 1986).

Furthermore, the budget information is not used for the financial control purposes. Budget is done occasionally and it is only for physical development budget. The budget for physical construction is sometimes used to measure the effectiveness and efficiency

of the materials used through comparison of the budget figures with the actual figures, as the Director said:

“I directly supervised the construction of building. For example, I ask question why they bought 100 sacks cement while in the budget there are only 50 sacks written.”

However, generally, budget is not seen as part of the accounting activities or accountability mechanism. The budget is not perceived as the most important organisational process with respect to the purpose of accountability. This may be because of a lack of knowledge concerning the importance of a budget as an instrument of accountability. As mentioned, none of those involved in the management team has an accounting or management educational background.

It is also important to note that in *Pesantren Peace*, fund spent is not classified as programme and administrative expenses. Consequently, from an accounting point of view, the management cannot measure the organisation's performance since one way to judge an NPO's performance is “to measure the amount of resources the organization spends on providing program services (to carry out its purpose) vs. what it spends on management and general expenses and fundraising. For most organisations, a higher percentage of resources spent on

programme services than on management, whereas fundraising is considered a positive “performance indicator” (Henderson et al., 2002, p. 3).

Internal Control and Financial Management

Various empirical research has shown the importance of good administration and control system in religious organisations such as churches and mosques. The internal control theory suggests that a good internal control structure will result in less embezzlement (see Berry, 2005; Sulaiman, 2007; West & Zech, 2008).

This study explored two aspects of financial management of Pesantren Peace; the administration and internal control procedures of the receipts of revenue and the disbursement of funds, as the aspects are perceived as liable to misappropriation.

Pesantren Peace, particularly the Finance Section, handles receipts or funds collected from students, donors or society in accordance with the management policies. The *organisation* implements three control activities in this regard – the recording aspect, the physical custody of the funds, and the segregation of duties.

At the collection stage, there is a cashbook for cash received. The accounting section records all its financial transactions, all cash inflow and cash outflow in the cashbook. Two cashiers handle the collection of cash, the chief cashier and an assistant cashier. A report of the collection is given by the chief cashier to the head of finance section for recording in the cashbook. The

task and responsibility for counting and recording the collections in a cashbook are segregated to different officers. The head of the finance section explained this process as follows:

“We have two cashiers here, the chief and the assistant. The assistant is responsible to the chief. She hands the money to the chief. Then the chief submits it to me together with the receipt and proceedings after calculating it. The cashiers have to do calculation every afternoon. Then they submit to me. I also counted the amount based on the receipts submitted to see if it corresponds with the cashier calculation.”

This is very important to avoid losses resulting from financial misuse, as embezzlement often occurs when trusted employees have access to both assets and financial records. Therefore, a fundamental tenet of internal accounting control is to keep the financial records keeping separate from those individuals who have access to assets, especially cash (see West & Zech, 2008).

Even though there are a financial control procedures in Pesantren Peace for the collection of fund, all the officers in the accounting section have limited knowledge about internal control. They are not even aware of the advantages of the segregation of duties of counting and recording of collection activities. When asked why the

organisation needs to segregate this task, the finance section head explained that she did not know that this task should be segregated. She said, “To tell you the truth, I don’t really understand why we need the segregation of duties”. Whereas, the director of the *Pesantren Peace* understand the crucial role of internal control specifically on segregation of roles and responsibilities from his experience in managing business organisations prior to joining *Pesantren Peace*. He said,

“I was the manager of [business organisation] which has activities throughout Aceh. Therefore, I was asked to lead this *Pesantren*. The knowledge that I gained from the company helps me a lot in leading this institution.”

All cash received is kept in a safe “locked box” since the cash receipts are not always banked when some of it is used for daily expenditures. A monthly report of cash receipt is routinely prepared by the accounting section. Four copies of monthly collection reports are sent to the director of the *Pesantren*. The head of the Finance Section explained this by saying,

“We submit four copies of monthly report of cash received by the director. Then the director decides to whom the report will be submitted whether to foundation committee or any other parties. It is the concern of director.”

The *Pesantren* also ensures that at least four persons are advised of all donations and other aid from society. She further explained saying that,

“At least four persons know about the donation – director, the deputy-director, secretary and head of finance unit.”

Major disbursements are sometimes made by cash. Serial numbered cheques are only used if the cash receipts kept in a locked box on the *Pesantren* premises could not cover the expenditure and also to pay the employees’ monthly salary. If disbursements are made by serial numbered cheques, two people are required to sign the cheque, the director of the *Pesantren* and the head of the finance section.

An invoice is treated as a mandatory supporting document for payment in this organisation. Except for routine disbursement such as expenditure for the kitchen, all invoices for other goods and services expenditures are required to be checked for accuracy, and they must be approved by the director of the *Pesantren* before any payment is initiated either by cash or cheque. The head of the finance section will not issue cash before getting approval from the director of the *Pesantren*.

Official receipts are used as a basis for recording the disbursements by the treasurer in the cashbook. The *Pesantren* does not maintain a petty cash fund for minor expenses. For such disbursement, the *Pesantren* also issues from the same

source allocated for major disbursements. The small disbursements are also initiated with vouchers that have to be approved by a responsible officer. The absence of petty cash as part of internal control is due to the limited understanding on the need of internal control on activities relating to the maintaining of petty cash.

Accountability Relationship

Pesantren Peace views itself as accountable to three different levels of stakeholders. First, it is accountable to funders or donors, either private organisation donors, or government donors. Second, it is accountable to one another and themselves, as the unit manager, staff, and foundation committee. Third, it is accountable to those who are served by the organisation; in this case the community, especially the parents whose children are educated by the *Pesantren*. This is reflected in the following comment:

“Accountability is to our stakeholders, which consist of direct and indirect stakeholders. The direct stakeholders are the government and parents. The indirect ones are other donors including partner educational institutions as well as the community at large.” (Human Resource Manager).

“I receive monthly accountability report from *Tsanawiyah* [Junior High School], *Aliyah* [Senior High School], general kitchen, and from the infrastructure unit. However,

I do not receive a report from an infrastructure unit on monthly basis.

I further report all of this to the foundation.” (Director).

Christensen and Ebrahim (2004, p. 3) emphasised that non-profit organization can be accountable on multiple levels: upward, downward and lateral accountability. Upward accountability is accountability to funders or donors. Downward accountability refers to accountability to the clients or to individuals or groups to whom NGO's provide goods and services. Meanwhile, lateral accountability is an extension of the upward and downward accountability, and this refers to an organisation's accountability to its staff, mission, goal and partners (Christensen & Ebrahim, 2004; Jordan, 2005). Lateral accountability also means that manager of each unit in the organisation has the responsibility to give account to its superior or to the higher authority (Christensen, 2002).

In the case of upward accountability, the management of Pesantren Peace only fulfils financial accountability to government donors and to private organisational donors, and that there is no financial accountability presented to the individual donors. This accountability is shown through sending reports and through verbal explanation during monitoring visits from its donors “government agencies or organisational donors”. *Pesantren Peace* often receives monitoring visits from government agencies or organisational donors that provide financial aid. This is also highlighted by the directors of two donor institutions.

“After giving financial support, Department of Religious Affairs makes a field visit to monitor financial spending, and also to ask the beneficiaries to give account of expenditures made together with physical evidences.” (Head of Government Agency).

“Yes, when we donate money to them, we also some time visit their organizations to ensure that they are transparent, accountable, and also have good management both financial and general administration...our monitoring team visit the field and office to ensure the quality and the progress of the project.” (Director of a Private Organizational Donor)

In terms of lateral accountability, in the context of Pesantren Peace, each head of unit within the *Pesantren* has to give a financial account to the director of the *Pesantren*, either periodically or by request. All of them have to make sure that financial resources are used properly. This is usually ensured through both formal (written) and verbal explanation.

Accountability to its beneficiaries as downward accountability is done by giving a verbal explanation and discussion during the annual meeting with the students’ parents. Clearly, the accountability relationship in Pesantren Peace is “multi-layered”, in which, to difference audiences, accountability is performed through different tools. Table 1 provides a summary of a various accountability tools used by Pesantren Peace.

Table 1
A Summary of the Various Accountability Tools used by Pesantren Peace

	Accountability to Whom	Accountability Tools
Upward/External Accountability	Private Organizational Donors Government Agency	Formal (written) Report Expenditure evidence (Invoices) and photo of physical progress for certain donors Verbal explanations during monitoring visit team
Lateral/Internal	Foundation Committee (Board) Unit Managers, Staff	Formal [written reports] Expenditure evidence [invoices] Staff Meeting Informal communication among staff Phone conversation Attending board meeting Regular contact with School managers
Downward Accountability	Beneficiaries Students’ Parents	Verbal explanations and discussions during general annual meeting.

Even though the structure of Pesantren Peace is hierarchical in nature, there can be different accountability requirements for the fund used by certain sub-units of the *Pesantren*. For example, a special financial aid received from the government such as “school operating fund”, the government i.e. the Department of Religious Affairs directly transfers this particular fund into the account of the school units, not to the *Pesantren* account. This transfer of funds follows the government’s policy in which the units (schools) must be administrated separately. Thus, the school managers have their own treasurers, and the schools are only directly accountable for this fund to the government agency by complying with the government reporting regulations. Whereas, to the director of the *Pesantren*, they only need to inform the total amount of such special funds received and disbursed.

Pesantren Peace is accountable to both internal and external stakeholders. Among the external stakeholders are the donors who provide the funding, students’ parents, users of the services, and the society that indirectly receives benefits from the activities. The internal stakeholders are the foundation committee and the employees of the organisation.

It seems that Pesantren Peace views itself as a steward of the funds entrusted to its institution with the requirement to give an account of its stewardship to its stakeholders. The management of Pesantren Peace has to provide a link between *amanah* (trust) and total accountability and responsibility to human beings (stakeholders). This

belief is consistent with the concept of accountability as the manifestation of Islamic teaching, in which Muslims cannot separate between their accountability to God and accountability to human beings. Thus, as an Islamic religious organisation, the *Pesantren* has to fulfil the obligation to a number of stakeholders which include the government, private sector donors, clients and members, as an integral part of satisfying their accountability obligation to God.

The Role of the Foundation Board [Foundation Committee]

Financial accountability can be improved through several measures. One of them is that the organisation should have a board of directors that consists of independent individuals including some who are not directly connected to or interested with the organization. The main role of the board is to monitor management in order that they manage the organisational resources in furthering the objectives of the organization and not diverting them for their own private enjoyment (see Hyndman & Mac Donnell, 2009).

In non-profit organisations, the board can play a critical role not only in making the selection of the director of the organisation, but also a central role in enhancing the accountability of the organisation to ensure that the organisation’s resources are used wisely and the mission is fulfilled (Kuan et al., 2003). In practice, the board members of non-profit organisations, including religious institutions, usually consists of volunteers,

most of whose efforts are dedicated towards advancing the missions of the organisation. In his study, Kuan et al. (2003) documented that the most important responsibilities of their foundation board members are to verify an organisation annual work plan, followed by verifying and approving annual budgets and financial accounts, and defining organisation tasks and operational procedures. They also mentioned board governance as an important issue when discussing the accountability topic of non-profit organisations. In fact, some view that it is extremely important for the board of directors to play a central role in accountability.

In the context of Pesantren Peace, board members or those who are eligible to monitor and ensure proper organisational accountability are referred to as the committee of Kita Foundation. This foundation committee currently consists of eight persons comprising a director, one deputy director, one secretary, one deputy secretary, one treasurer, and three advisors.

In the past, the director of the foundation committee was also the director of Pesantren Peace. Consequently, the board plays a very limited role and their function in enhancing the financial accountability of the *Pesantren* is rather weak.

Their function is mainly for giving final approval of the decisions made by the director of the *Pesantren*. This is illustrated in the following quote:

“When we receive funds like for the school operational fund, the

foundation committee just signed the paper so that the money can be spent legally. Never have I been invited, never. It is us who invite them (Foundation Committee Members).” (Director)

However, with the new regulation of Kita Foundation, those who hold a position as an executive member of Pesantren Peace are not allowed to be part of the foundation committee. This policy is in line with what is prescribed in the literature concerning non-profit organisation’s accountability, which suggests that a strong oversight board must be independent from the management practice (Jordan, 2005). The segregation is very important because if any board member is directly benefiting from the work of the organisation, it can create a conflict of interest.

Seen from their involvement in the development of Pesantren Peace, the committee members of Kita Foundation are considered as passive. They are not involved in fundraising efforts for the *Pesantren*. They do not take the initiative to invite the director of the *Pesantren* and his members for financial meetings, nor do they ever review or verify the financial reports prepared by the management of the *Pesantren*, as illustrated in the following comments.

“The current committee members are some what passive, since reshuffle just took place. Because of the reshuffle they have to

start from the beginning. They are not very well informed about the assets and financial condition of the *Pesantren*.” (Foundation Committee Member).

“The supervision is actually necessary. The committee should monitor and provide advice and guidance to us. But, it never happens. They only come when we invite them. If we don’t invite them, they do not come. I think it is a real set back and it should not be that way.” (Director).

Interestingly, the director of *Pesantren Peace* tends to accept the passivity of the foundation committee and he never makes any efforts to encourage them to be more involved, given that none of the board members holds a degree or has relevant training in accounting or management, and hence lacks understanding regarding the roles in overseeing the management of the *Pesantren*. Notwithstanding, the board committee ideally should have knowledge in financial supervision, as highlighted by Keating (2001, p. 12):

“For the board, knowledge about the financial performance of the organization is particularly important because it indicative of the performance of the staff. Board hold staff accountable for performance and the board is, in

turn, held responsible by the public for the overall performance of the organization.”

Unquestionably, motivation is not enough to ensure proper organisational accountability by board members because management must be exercised to ensure that the organisation is operated and managed in a manner that consistent with its mission, and in the best interests of the organisation. Therefore, the board committee should ideally have knowledge of financial supervision because “the most scandalous non-profit failures have been because of financial irregularities with resulted from board members not asking finance related questions” (Hurwitz, 2006, p. 1). This means that a weak or uninvolved board opens the door to poor performance of the organisation and fraud.

In spite of this passivity, the foundation committee has expressed their willingness to be more involved and participate actively to advance the organisation’s mission. As explained by a committee member of *Kita Foundation*,

“Now the foundation committee has made a plan to examine and audit the two institutions under the foundation. In the first meeting, they asked the directors of the two institutions to describe the assets condition of the respective institutions.”

This initiative is also acknowledged by the human resources manager as he explained:

“They started to invite us [*Pesantren* management] at the beginning of March. That was the initial step of the foundation committee... They would like to know the real condition of the *Pesantren* in general, including its management and its finances.”

According to one of the foundation committee members interviewed, the audit team consists of committee members of Kita Foundation, all of them serve voluntarily, and are independent from any financial interest in the *Pesantren* organisation.

CONCLUSION AND IMPLICATIONS

Pesantren Peace reflects another approach to Muslim education in Indonesia at present. In fulfilling its mission as an Islamic educational institution, the *Pesantren* employs a non-religious background person to manage the institution, which is not a normal practice since this phenomenon rarely occurs in other *Pesantrens* in Indonesia.

In addition, *Pesantren* Peace is not characterised by the power elite of the royal family, as is the case with many other *Pesantrens* in Indonesia. This clearly indicated that the management style of *Pesantren* Peace is characterised by one of Weber's three types of authority theory called “legal-rational authority”. This means authority is derived from a formal belief in

the law or natural law. Deference is based on certain principles which is not given to any specific leader (Williams, 2003). It can be described that *Pesantren* Peace operates according to logic, as a modern institution or at least having aspirations for modernity.

Pesantren Peace is owned by a foundation, in which its operation depends mainly on public trust. It receives funding from the local government and also donations from public; either from individual or organisational donors. The *Pesantren* views itself as accountable to various stakeholders such as financiers, particularly, government and private organisational donors and its organisational members and also the foundation.

Another issue that emerged from this study is that accountability in this institution is narrowly defined in terms of reporting its financial reporting affairs, which is only to certain stakeholders such as the foundation committee, the government and the private organisational donors. Meanwhile, some other stakeholders such as the general public or those who donate small amounts of money are not viewed as key audience or stakeholders for the purpose of reporting its financial reports. This implies that the willingness of the *Pesantren* to provide financial accountability is not free from the demands and enforcement from key stakeholders. This class of stakeholders (i.e., the government the institutional donors for example) usually have the power to impose on the recipient of the fund; in this case the management of *Pesantren* Peace, to make sure that the donations are used

properly so as to achieve the organisation's mission, hence, the coercive isomorphic pressure on the organisation to comply with the requirement. *Coercive isomorphism* refers to a situation in which the acts of the management of an organisation are the "results from both formal and informal pressures exerted on an organization by another party" (Dillard et al., 2004, p. 509). Thus, organisations that do not behave will consequently be treated as illegitimate and will face penalty, sanctions or contract, or as in the case of the pesantren, the possibility of the government withholding financial resources.

Another insight from this research is that the accountability mechanism of this institution ranges from being a formal accountability such as financial reports to an informal component like verbal explanation to its beneficiaries. This means that to some extent, the accountability practices in Pesantren Peace tend to be contractual, but to some degree, it tends to be communal in which the accountability relationship is less formal and the expectations are also less specified. Nevertheless, this clearly indicates that formal reporting is perceived as important in enhancing the level of accountability for Pesantren Peace.

Even though accounting is viewed as part of the religious duty and an integral component to achieve the organisational mission, accounting practices in Pesantren Peace are less developed. The way financial accountability is demonstrated by the management of this institution is still far from what is expected by society. The

evidence suggests that the unsatisfactory accounting and accountability practices within the organisation are due to the lack of management commitment, lack of qualified staff in financial administration, as well as a lack of understanding of the roles of accounting in enhancing accountability of the organisation. There is no evidence to suggest that this problem is caused by the resistance of such activities as religious activities.

Such insights, however, should be treated with caution since this research is a qualitative study based on the evidence from one Islamic boarding school, which has several unique characteristics compared to other *Pesantrens*. Therefore, the results of this study should be treated with caution when applied to other Islamic boarding schools. Moreover, further studies need to be done especially in the classical *Pesantren* in order to gain richer insights into accounting and accountability in Islamic religious organisations.

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APPENDIX

The list of people interviewed

No.	Interviewees Code	Position	No. of Interviews	Institutions
1	DR	Director	5	Pesantren Peace
2	HRM	Human Resources Manager	4	Pesantren Peace
3	TR	Head of Finance Section/ Treasurer	5	Pesantren Peace
4	ST	Student	1	Pesantren Peace
5	ST	Student	1	Pesantren Peace
6	HS1	Head of School Unit (Senior High School)	2	Pesantren Peace
7	HS2	Head of School Unit (Junior High School)	2	Pesantren Peace
8	FC	Foundation Committee Member	2	Pesantren Peace
9	AL	Alumni	1	Pesantren Peace
10	TC	Teacher	1	Pesantren Peace
11	SP1	Student Parent	1	Pesantren Peace
12	SP2	Student Parent	1	Pesantren Peace
13	SP3	Student Parent	1	Pesantren Peace
14	D1	Director	1	Organizational Donor
15	G01	Director	1	Dept of Religious Affairs(District Level). Dept of Religious Affairs (Provincial Level).
16	GO2	Section Head	1	Pesantren Supervisory and Development Agency (Prov. Lev.).
17	GO3	Director	1	

An Analysis of Intellectual Capital and Turnover Intentions among Malaysian Employees in the Private Organisations

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ABSTRACT

The main aim of this paper is to study the effect of intellectual capital (IC) on turnover intentions (TIs) among employees in Malaysian private organisations. Measuring IC and its influence on employee's TIs represents an initial step. Until recently, there has been little quantitative analysis of IC elements: human capital, customer capital, structural capital, social capital, technological capital and spiritual capital in predicting employee's TIs. By using a non-probability random sampling method, this study involved 189 subjects who are working in Malaysian private organisations from various industries, departments, positions, tasks and responsibilities. Results showed that only structural capital negatively influenced employee's TIs from the present organisations. Meanwhile, organisational culture, systems and procedures, employee development and involvement on decision making, up-to-date policies, technologies and networking are the keys to enhance employee's retention. The key evidence presented in this study suggests that organisations should establish competitive working environment, systems and infrastructures to encourage employee's commitment, interaction and development. There is a wide gap in the literature discussing on the influence of IC on retention and TIs. This indicates that there is a need to justify the effects of IC elements on the turnover of specific group of employees and industries by conducting more quantitative and qualitative studies to determine and witness the relationships.

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INTRODUCTION

Resource constraints and retaining employees are the key challenges for the business players (Chowdhury, Schulz,

Milner & de Voort, 2014). Assets internalise a high degree of organisational strategic value and interfere into an organisation's value creation (Lepak & Snell, 2002; Cheng, Chia & Liu, 2014). The estimation value of an organisation can only be erected with the presence of tangible and intangible factors called intellectual capital (IC) (Pook, 2011). The main issues addressed on IC's development captured from macroeconomic phenomenon and economic characteristics pertain to intangible resources (Pedrini, 2007). This development has grown from several changes including organisational environments, industry specific characteristics, data availability and the new economy (Bontis, 1998).

The issue of managing IC has been prominent over the last fifteen years (Gowthorpe, 2009). In 1997, Stewart has observed the management of IC, which includes promoting teamwork, developing networks and communities of practice. In order to manage these aspects, organisations have to find talent, activate, invest them and propose accurate measures for talent preservations. Strategic employee's retention relies much on IC resides in managing organisation talents (Teargarden & Schotter, 2013). The failure of organisations to review this asset exists critically in investing in an acquisition strategy to identify, attract and retain high performers. Migrating employees to other competing organisations is the case of voluntary turnover which often results in the exploitation of IC (Ghosh, Satyawadi, Joshi & Mohd. Shadman, 2013).

The past decade has seen the rapid development of IC and relatively gained

interests among scholars (Pedrini, 2007; Gowthorpe, 2009; Gogan, 2014). Whilst some research have been carried out on the influence of IC on individual performance (Wang, Yen & Liu, 2015) and organisational performance (Abdel, Jawad & Bontis, 2010; Uadiale & Uwuigbe, 2011; Costa, 2012; Chowdhury et al., 2014), there have been few empirical investigations to witness influences of IC in predicting employee's turnover intentions (TIs). Longo and Mura (2011) indicated that measuring IC and its influence on employee's retention represents an initial step. IC has improved employees' work behaviours and influenced their satisfaction and retention. This indicates a need to investigate the influence of IC in predicting employees' TIs that exist among competitive organisations. This paper addresses the gaps from previous studies which analyse the influence of IC in predicting employee's TIs.

Relationship between IC and TIs

Scholars hold the view that IC is an intangible asset (Lu, Wang, Tung & Lin, 2010; Pook, 2011; Costa, 2012; Tamer, Dereli & Saglam, 2014). The term IC is commonly referred to as knowledge capital and knowledge economy (Gowthorpe, 2014). Dzinkowski (2000) defines IC as a total stock of capital or knowledge-based equity that a company possesses. IC incorporates human capital, structural capital, relational capital, customer capital and social capital (Longo et al., 2011; Gogan & Draghici, 2013; Teargarden et al., 2013; Chowdhury et al., 2014). Bontis, Dragonetti,

Jacobsen and Roos (1999) categorised IC into human capital, structural capital and relational capital. The value creation efficiency exists from other components such as physical capital, structural capital, customer capital and social capital (Bontis, 1998; Bontis, 2001; Carson, Ranzijn, Winefield & Marsden, 2004; Lu et al., 2010; Costa, 2012).

In the influence of IC in Predicting Employee's TIs, Longo et al. (2011) highlighted the need to witness the link between IC and employee's retention. A combination of IC is a positive outcome of an employee's work behaviour, social network, career satisfaction and retention. Central to the retention is the evidence of avoiding disruption caused by turnover (Teagarden et al., 2013). Mutual relationship between employee's talent and IC is found in the form of knowledge value creation of organisations. This value can be met when organisations are able to retain talented employees who help to create a task-specific and greater performance (Chowdhury et al., 2014). This availability is evidence for organisations to benefit in the way to decrease TIs among employees (Yang, Gong & Huo, 2011). Turnover intentions refer to an employee's voluntary intention (Kuvass, 2006; Mobley, 1982) and a conscious and deliberate wilfulness (Tett & Meyer, 1993) departing from his or her current employer. Turnover intentions lead to the actual turnover (Tett et al, 1993); thus, TIs should become a construct in measuring the actual turnover of an organisation (Price, 2001).

Additionally, there are influences of human capital, structural capital, social capital, technological capital, customer capital and spiritual capital on TIs. Human capital is based on employees' skills, knowledge and abilities within a human resource (Kim, Jeong, & Ko, 2013). Gogan (2014) stated that to remain in the front position, organisations require a good capacity to retain, organise and utilise employee's capabilities. The most challenging aspect of IC is to retain an individual person while managing global organisations and response to external uncertainties (Aghazadeh, 1999). Lu et al. (2010) provide a human capital index that includes employee's turnover. In a specific study on IC, Longo et al. (2011) proved that human capital improves employee's satisfaction and behavioural intentions looking other jobs. The findings from Kennedy and Daim (2010) suggested that there may be a link between human capital and employee's intention to stay to prove the benefits for organisations.

Strategies to enhance structural capital involve structures, systems, processes, routines, methods, information systems, productivity, organisational culture and development capacity (Steward, 1997; Bontis et al., 1999; Longo et al., 2011; Gogan et al., 2013). Factors that are thought to influence an employee's decision to stay involved are sharing information and effective organisational intervention programmes (Longo et al., 2011). Chien and Chen (2008) added systematisation

and effective personnel selection processes to help organisations to find suitable talents and improve retention rate. Other than that, consistency of creating a specific task increases core employee's productivity and retention for a prolonged period of time (Chowdhury et al., 2014). In contrast to human capital, Abdel et al (2010) argued that structural capital can be traded, reproduced and shared within an organisation. The critic has also argued that not only flexible, but structural capital is owned by an organisation and remains even after the employees leave the current employer (Uadiale et al., 2011).

It is thought that social capital, which is also known as relational capital, is considered as organisation's business networks such as customer loyalty, goodwill and supplier relations (Carson et al., 2004; Costa, 2012). Abdel et al. (2010) realised that social capital helps to improve the capabilities of an individual and organisation for future benefits, where the high co-operation among societies, government and organisations are emphasised. An opportunity to develop network members to share common experiences is an important element for building trust and social communication (Teargarden et al., 2013). Little is known about the direct relationship between social capital and Tis; however, Carson et al. (2004) revealed that social capital is relatively important compared to human capital. There is evidence to reveal that social capital has influenced employees' job attitudes, satisfaction and retention (Longo et al., 2011).

Customer capital refers to the connections and relationships of the

organisation with external environment factors (Gogan et al., 2013). The relationship gains with customers, suppliers, industry associations or any other stakeholders that influence an organisation's life (Bontis, 1999). Customer capital encompasses the external assets of an organisation, where customers are the principal determinants of this asset. A relationship exists between customer capital and organisational performance (Lu et al., 2010; Uadiale et al., 2011). Technological capital refers to a combination of knowledge development activities and functions; and the technical systems of the organisations to responsible to obtain products and services. Subsequently, spiritual capital is the interconnectedness experience which involves work process, initiated by authenticity, reciprocity and personal goodwill. Bontis (1999) revealed that the relationships with customers, suppliers and industry associations affect the life of an organisation. Meanwhile, better technology helps organisations to remain competitive and productive (Chowdhury et al., 2014). Previous studies have proven the impacts of customer capital, technological capital and spiritual capital on organisational performance (Marques, 2008; Uadiale et al., 2011). However, the influences of these capitals in predicting employee's turnover intentions remain at the level of infancy. Therefore, we hypothesised that: H1: human capital is negatively related to TIs; H2: structural capital is negatively related to TIs; H3: social capital is negatively related to TIs; H4: customer capital and TIs are negatively associated; H5: technological capital and TIs

are negatively associated; and H6: spiritual capital and TIs are negatively associated.

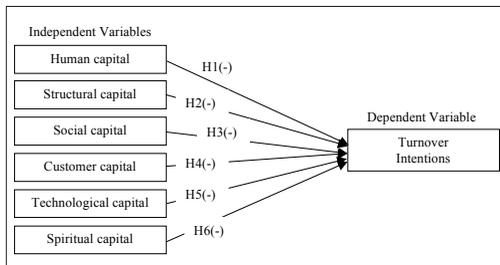


Figure 1. Research model

METHODS AND MATERIALS

This pure quantitative study involved private organisation employees in Malaysia. By using non-probability random sampling method, this study employed 189 subjects (or 62.3 percent) to represent various private organisations such as manufacturing, services, finance/banking, constructions, computer/IT, hotel/restaurants, sales/marketing, oil and gas, electric and electronics and health care to get the necessary responses for data collection. In addition, this study employed various positions, departments and divisions of employees who are performing different tasks and responsibilities. Respondents were explained about the purpose of the study to avoid misunderstanding on the items used and the accuracy of the answers. A survey questionnaire consisted of multi-item measures which had been validated and shown to be reliable by previous researchers. The items involved IC dimensions, namely human capital (13 items), structural capital (13 items), social capital (12 items), customer capital (10

items), technological capital (12 items) and spiritual capital (12 items). These IC dimensions were developed by Khalique, Bontis, Abdul, Abu and Isa (2015), while turnover intentions (3 items) were developed by Camman, Fichman, Jenkins, and Klesh (1979). Responses were given on a five-point scale (1-strongly disagree; 2-disagree; 3-neutral; 4-agree; 5-strongly agree) for all the dimensions used (IC and turnover intentions).

RESULTS

The respondents consisted of men (32.8 percent) and women (67.2 percent). Most of the respondents are Malays (98.6 percent) and officers represented the huge samples of 66 (21.2 percent). Most of the respondents in this study were below 25 years old (87), while 123 (39.5 percent) of them were in the range between 1 and 5 years of work experience at the time of this study (Table 1).

Table 2 indicates that the items used for this study are reliable (ranging from 0.766 to 0.958). The correlation between IC and turnover intentions was found to be negatively related. Structural capital showed a negative correlation with turnover intentions at $-.402$ (** $p < 0.01$), followed by human capital, social capital, technological capital, customer capital and spiritual capital. The range of relationship, however, showed a weak relationship between IC dimensions and turnover intentions (ranging from 0.253 to 0.402). The impacts of these elements on turnover intentions can be seen in Table 3. As shown, the role of structural

Table 1
Demographic Background of the Respondents

Demographics		Frequency	Percentage
Gender	Male	62	32.8
	Female	127	67.2
Race	Malay	183	96.8
	Chinese	2	1.1
	Indian	2	1.1
	Others	2	1.1
Marital Status	Single	119	38.3
	Married	70	22.5
Designation	Director	1	0.3
	Assistant Director	2	0.6
	Manager	7	2.3
	Assistant Manager	9	2.9
	Senior Executive	10	3.2
	Executive	64	20.6
	Officer	66	21.2
	Others	30	9.6
Age	Below 25 years old	87	28.0
	26-35 years old	86	27.7
	36-45 years old	14	4.5
	46-55 years old	2	0.6
Working Experience	1-5 years	123	39.5
	6-10 years	45	14.5
	11-15 years	11	3.5
	> 16 years	10	3.2

Table 2
Correlation between Research Constructs

Research Constructs	M	SD	α	1	2	3	4	5	6
Human capital	3.7889	.68217	.771						
Customer capital	3.7468	.70948	.768	.827**					
Structural capital	3.8269	.68012	.766	.756**	.748**				
Social capital	3.8434	.69138	.768	.779**	.740**	.785**			
Technological capital	3.6896	.69895	.766	.709**	.729**	.815**	.760**		
Spiritual capital	3.7547	.71606	.767	.731**	.683**	.755**	.804**	.735**	
Turnover Intentions	3.0176	1.14995	.958	-.364**	-.253**	-.402**	-.305**	-.275**	-.272**

Notes. N=189. Two tailed significance test of correlation coefficient, * $p < 0.05$., ** $p < 0.01$.

Table 3
Regression Analysis

Model (Constant)	Coefficients ^a				
	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
	.827**				
HC	-.440	.239	-.260	-1.838	.068
CC	.270	.198	.163	1.365	.174
STC	-.718	.244	-.444	-2.939	.004
SC	-.083	.227	-.049	-.367	.714
TC	.211	.210	.129	1.008	.315
SPC	.149	.197	.093	.758	.450

a. Dependent Variable: Tis

Notes. HC-human capital; CC-customer capital; STC-structural capital; SC-social capital; TC-technology capital; SPC-spiritual capital.

capital in predicting employee’s turnover intentions was a highly negative significant, that is p value=0.004 and β =-.718, which is lower than 0.05. Hence, the hypothesis H2 is accepted, indicating that structural capital is negatively related to turnover intentions. However, the other elements are insignificant to predict intentions of the current employees to leave their current employers. The p value showed greater than the threshold value of 0.05. Hence, H1, H3, H4, H5 and H6 are rejected. These results have clearly proven that human capital, customer capital, technology capital, social capital and spiritual capital are not necessarily important in predicting employees’ turnover intentions.

DISCUSSIONS

The results showed the important roles of IC in predicting employees’ turnover

intentions. Being consistent with the findings of Longo et al. (2011), it was found that the role of IC is useful for predicting current employees’ retention decisions. This study revealed that only structural capital remains significant to predict Malaysian employees’ turnover intentions. The negative association between these variables shows that employees are used to work with structured systems, processes, normal daily routines, which provide clear information and pleasant organisational culture. Longo et al. (2011) and Chowdhury et al. (2014) reiterated that organisational interpretation, which this study mainly suggested as the organisational intervention systems, affected the employees’ behaviour and attitude towards employment and productivity. Since structural capital is constant, organisations are able to strategise, monitor and re-structure to match with internal and external demands. In addition, a higher significant

relationship between structural capital and turnover intentions focuses on task specific goals with clear information to accomplish.

Previous studies admitted the huge challenges involved in curbing the current employees from leaving to look for other jobs (Chowdhury et al., 2014). In contrast to structural capital, the findings of this study revealed that this element is difficult to predict, and is mainly into employee's behaviours and expectations. The early prediction remains the same, whether or not human capital shapes employee's decisions to stay within an organisation. Failure to provide a platform to generate new ideas and less support for research and development activities affects expert and talented employees from remaining with the same employer. The uniqueness of employees' skills, knowledge and experience should be highlighted. Customer capital, technological capital, social capital and spiritual capital have also received less support from the employees in predicting them whether they will leave the current employers. Social relationship does not just develop within employees' attributes, but it is also gained from various parties such as customers, suppliers, departments and institutions.

CONCLUSION

This study found that the relationship among employees and trustworthiness has become a major concern which positively influences employees' retention decisions. Technology wise should align with the high

level of task difficulties. When organisations are unable to supply equipment, research and development unit and have limited skillful professionals skilful to operate the technology, the productivity of the present employees could expectedly be dropped. Spiritual capital relates to employee's faiths and beliefs and much consideration to the religious spirits. The diverse religions might influence the employee's expectations, mainly on profit generation, inner believes and ethics. These are the subjective aspects yet very difficult ones to control and measure accurately.

One of the limitations of this study is that the items that are used to predict employees' turnover intentions from the present employers. There are too many items for each dimensions of IC which might influence the respondents' focuses to respond to the accurate answers. Thus, future researchers are encouraged to review previous developed constructs before distributing to any focus groups. Secondly, the dependent variable of this study only focuses on turnover intentions among employees of Malaysian private organisations. Thus, future researchers should look at talent retention, intention to stay or intention to leave among special groups such as managerial level, middle level, occupations and specific fields. Since this study only used the quantitative method to determine the relationships, future researchers can conduct a mix method and longitudinal studies to prove the interference of IC on retention outcomes.

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Taqwa: Deconstructing Triple Bottom Line (TBL) to Awake Human's Divine Consciousness

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ABSTRACT

Inspired by Elkington's (1997) concept of Triple Bottom Line (TBL), this study was carried out with the aim to formulate a holistic concept of managerial performance. Even though TBL is much better than the traditional financial measurement, for a theistic-spiritualist, it is still a partial and secular way of doing business. Based on that reason, TBL needs to be deconstructed. By making use of the concept of *taqwa* as lenses, the study attempts to deconstruct TBL and reformulate it as a new concept of managerial performance. *Taqwa* is a concept of an ultimate spiritual achievement of human being that is indicated by a feeling of union with God, people and nature, as well as awareness of obeying the divine will. The results of the study exhibit that managerial performance is ideally concerned with not only profit, planet and people, but also prophet and God. The concept called as Pentuple Bottom Line (PBL), in essence, stimulates the presence of the human's ultimate consciousness to be united with God.

Keywords: God, prophet, pentuple bottom line, triple bottom line

INTRODUCTION

Profit is normally known as a traditional measurement to evaluate a management's performance. Management's success and failure in managing a company depends on the amount of profits earned. Until now, profit is still a central point, and even a mindset, of most

management and entrepreneurs in running their businesses. However, in few last decades some have created new concepts on performance such as *tableau de bord* (TDB) (1930s) (Bessire & Baker, 2005; Souissi, 2008; Pezet, 2009), balanced scorecard

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(BSC) (1992) (Kaplan & Norton, 1992; 1996) and triple bottom line (TBL) (1997) (Elkington, 1997) that may be viewed as performance measurement (Souissi, 2008), or management control system (Bessire & Baker, 2005), or strategic management system (Kaplan & Norton, 1992; 1996). The latter versions basically attempt to make an improvement of the former. Say, if the former concept of profit is only concerned with a financial aspect, then the latter makes the former to be better by balancing with a non-financial feature. This is done by TDB and BSC. TBL also does the same logic. It attempts to balance the former, which basically emphasises on economic reality (profit), with natural (planet) and social reality (people).

Whatever the concepts are, be them profit, TDB, BSC, or TBL, it is worth noting that they are the products of a tradition that is full of certain cultural, economic, and social values (Burchell et al., 1985; Hopwood, 1999; Gallhofer & Haslam, 2004; McPhail et al., 2004; Tinker, 2004). This study would say that the existing concepts are moulded by secular and atheistic traditions. They are fully oriented to, and for the sake of, secular life. There is no indication that they have a connection between earthly life and hereafter.

Secular is one of other characteristics such as materialistic, individualistic (James 2007; Gallhofer & Haslam, 2011) and atheistic, of capitalism. These characteristics have a strong influence on shaping human's character. James (2007) argues that under selfish capitalism, which is

driven excessively by neo-liberalism, one has changed his/her needs to wants; connected with others only based on secular appearance, wealth and charisma, rather than love; and felt emptiness and loneliness that may finally result in personality disorder. Capitalistic civilisation has made people live in materialistic and individualistic ends.

On the other hand, the condition has made an increased turning to a spiritual dimension (Gallhofer & Haslam, 2011). This is a human quest for happiness. But, is it a real solution? Turning to a spiritual dimension by ignoring a materialistic dimension cannot solve the problem, rather it may create another problem. Why? Because a human being has materialistic and spiritual dimensions. The dimensions should be balanced and in harmony. Thus, this study attempts to balance those dimensions. It emphasises on a brief construction of a managerial performance concept that is based on a theistic-spiritualist perspective. Under the perspective, the existing concept is regarded as being incomplete. They never direct human behaviour to a divine consciousness that recognises the existence of God and never bring human's awareness to the real ultimate end of life. The perspective has a capacity to generate a new concept that is expected to be more holistic than the existing ones. Using a theistic-spiritualistic approach, the concept in essence broadens TBL by balancing its secular elements, i.e., profit, planet and people, with prophets and God as the spiritual elements. The combination will make the concept more holistic and better than TBL because for a

theistic spiritualist, there is no separation between the secular and the spiritual. They are in unity (*tawhid*) (Tinker, 2004, p. 452; Mustofa, 2005; Choudhury, 2008, pp. 239 & 245;).

The basic objective of the new concept is to awaken human's divine consciousness (Molisa, 2011; Chodjim, 2014) by utilising deconstruction (Derrida, 1976; Haddad, 2006; Direk, 2014) and *taqwa* (Chodjim, 2014). It is a consciousness that directs people to experience the presence and existence of God. Meanwhile, deconstruction is Derrida's method to read a text that basically to decentre what is regarded as the centre (the dominant, the important, etc.) by internalising the others (the minor, the trivial, etc.). *Taqwa* is the lenses that are utilised to read and analyse the text and in turn generate a new concept.

Deconstruction: a Method of Reading a Text

This study applies a concept of *taqwa* as a means to deconstruct TBL. Deconstruction becomes a very important instrument in this study, because by utilising it a new concept will be reproduced in a more holistic and perfect form than the former.

A question can be raised. What is deconstruction? Deconstruction, usually associated with Derrida – a French philosopher (Derrida, 1976), relates to a way of reading, interpreting and analysing a text. A text may be read, interpreted and analysed in a different ways by every person. Consequently, the meaning of the text may be different, or the text may have

more than one meaning (Direk, 2014). The text itself is inter-subjectively constructed by members of a society through very complex social interactions. Then, its meanings are reconstructed and reproduced continuously that finally implicates on a never ending production of new meanings (Hooker & Murphy, 2004; Jones, 2005; Haddad, 2006; Hicks, 2007). Formerly, for example, the meaning of a company's objective is to maximise profit. The text here is "a company's objective" and the meaning is "to maximise profit." Now, however, through deconstruction, the meaning of the text becomes "to maximise profit and to lift the wealth of people and planet." It is a new meaning of the (same) text. Nobody can hamper the birth of the new meaning. Again and again, a new meaning of a text will be born.

The way of reading and (re)producing a new meaning of a text can be done by combining something called the "centre" with the things that lay in a marginal position, namely, the "other(s)." For some, deconstruction refers to decentring a hierarchical relationship of the centre and the other such as form-substance, body-soul, man-woman, rationality-intuition, land-sea, earth-sky, and so forth. In a dichotomised way of thinking, the first order always dominates and even eliminates the second one. The first order is the centre, the second order is the other. The centre, say, "form" dominates and negates the other, "substance." The meaning of decentring in this context is to place the other at the same position with the centre. In other words,

decentring is a way of uniting the centre with the other that consequently produces a new meaning. For example, when we combine two atoms of hydrogen with one atom of oxygen, then we have a new meaning, namely, water. Elkington (1997) actually has deconstructed profit, as the centre, with a planet and people, as the others. The deconstruction resulted in a new concept we call triple bottom line (TBL). Figure 1 demonstrates the deconstruction.

Deconstruction, in our social reality, is not the law that is created by a social scientist or a philosopher, but rather is the law of social interactions that is in action. Derrida is only a thinker who observes the social reality and then formulates it into a concept that in turn we call it deconstruction. It happens in our daily life, be it in economy, politics, culture, science or technology. Our members of society always create and recreate a new meaning of their life. It is a dynamic interaction and process of lifting human's life and civilisation.

This study points out that deconstruction has already happened to the concept of profit as a traditional instrument of managerial performance. The concept of profit is deconstructed, and the result is TBL. By using the same process, TBL is deconstructed to generate Pentuple Bottom Line (PBL) (see Figure 1).

TBL, as a result of deconstruction on profit, has contributed to lessen negative effects of concentrating business to only profit, such as destruction on our natural environment and society. It is a concept that may sustain our life, i.e., the life of a

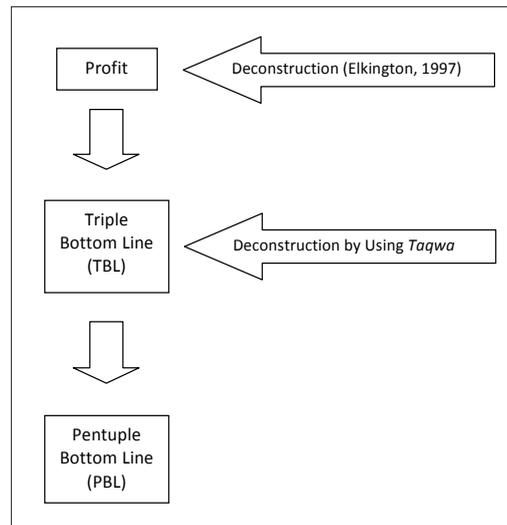


Figure 1. The Deconstruction of Profit and Triple Bottom Line (TBL)

company, our planet and our society. TBL transforms the traditional mindset of profit towards a broader concept. In other words, TBL emancipates a mindset that surrenders to the will of profit. To some critical and postmodernist accounting researchers, the issue of emancipation is not alien. They even make use of a religious or theological approach (Gallhofer & Haslam, 2004; Tinker, 2004; Molisa, 2011) to emancipate, for example, the deprived and the oppressed people for a better life and a better society (Gallhofer & Haslam, 2004, pp. 383-384; Tinker, 2004; McPhail et al., 2004). TBL, in this context, can be viewed as an endeavour to emancipate people from the hegemony of a profit-oriented mindset. It opens a broader awareness to us by giving an insight that in doing business, we have to not only appreciate profit, but also the planet and people for sustainable environment and society.

However, in this study, TBL is viewed as a concept that is not free from its cultural, economic, political and social circumstances. Indeed, it was constructed under those circumstances. This study assumes that TBL was constructed in a context of a modern civilisation in which the people who live in it may not have any strong belief in the existence of God. It sets aside the Existence. The work is secular and atheistic (McPhail et al., 2004). For in our perspective, TBL is a partial and limited concept that cannot cover a society's concern on a spiritual relation with God.

This study, therefore, attempts to deconstruct Elkington's (1997) TBL in the perspective of a theistic-spiritualist (Islam). By deconstructing TBL, the study generates a new concept that I call it as Pentuple Bottom Line (PBL). To do so, the study applies a concept of *taqwa*. It is a concept of Islamic piety that has a function as lenses to read a text.

In an accounting discourse, using religion as a source of values or philosophical foundation to emancipate, transform and construct a new concept has already emerged, or at least initiated, since accounting was understood as a socially constructed discipline (Burchell et al., 1985). In fact, most works on accounting research are in the genre of irreligious, secular, and even atheistic perspectives (McPhail et al., 2004: 320). For Gallhofer and Haslam (2004: 383), "theology and religious belief systems, as well as associated practices, can be inspirational and insightful" to see and (re)construct accounting discipline.

However, it is possible if accounting is not predominantly viewed as a technical instrument (McPhail et al., 2004, p. 320).

The works of, for instance, Tinker (2004), Gallhofer and Haslam (2004), and Molisa (2011) are done under religious, theological and spiritual perspectives. Other works, such as Triyuwono (2012), Kamla (2009), Lewis (2001), Baydoun and Willett (2000), and Gambling & Karim (1986), are in the perspective of Islam. These works hint a new movement in accounting that basically transcends the irreligious and secular affairs. This study is expected to generate a concept of managerial performance that supports the movement.

The Lenses: *Taqwa* as an Instrument to Deconstruct TBL

For the purpose of reading, analysing and reconstructing (deconstructing) TBL, this study needs to use lenses as an instrument. The lenses, more or less, are powerful to assist in driving and colouring a new concept resulted from a process of deconstruction. The lenses that are utilised to deconstruct TBL are *taqwa*.

Why does the study use *taqwa*? According to Islam, *taqwa* is a concept of the highest state of human's spiritual closeness to God. Al-Hujurat 49: 13¹ states that the most honoured human being in the

¹ Al-Hujurat is the name of a *surah* (chapter) in al-Qur'an; number 49 is the number of the *surah*, and number 13 is the number of a verse in the *surah*. The structure will be used in the next parts of the paper.

sight of God is he/she who is the most pious (*taqwa*). *Taqwa* is the best way to return to God because the ultimate purpose of human's life is to return to God (Al Baqarah 2: 156) in a state of *taqwa*.

Al-Qur'an does not state any specific definition of *taqwa*. However, it gives some indicators about any actions that make an individual become very closed to *taqwa* (Chodjim, 2014, p. 8). Chodjim (2014, p. 8) presents some indicators such as forgiveness (Al-Baqarah 2: 237), justice (Al-Maidah 5: 8), patience (Al-Baqarah 2: 153; Al-Anfal 8: 66), honesty (Al-Tawbah 9: 119) and other good deeds (Ali Imran 3: 104, 110; Annisa 4: 114) that direct a person towards *taqwa*. On contrary to Chodjim (2014, p. 8), however, some have defined *taqwa* as an attitude of avoiding God's punishment and obeying God's commands as an inner consciousness of accountability towards God, as fearing to disobey God's will, and so forth (Ali, 1997; Beekun & Badawi, 1999; Hasan, 2011; Sulaiman & Bhatti, 2013). Even Bhatti et al. (2015) make an operational definition by arguing that *taqwa* encompasses two dimensions, i.e., Islamic spirituality and Islamic social responsibility. Spirituality is an individual's inner awareness to feel united with the divine laws that have been implanted by God in his/her self, other people and universe. Meanwhile, social responsibility is actually as a consequence of the spirituality that interacts with social environment in a society.

This study indicates that *taqwa* is a spiritual state in which an individual's

inner consciousness has a capacity to unite with God and consequently he/she can feel, comprehend and totally obey God's commands that have been spread in universe (including people) in the form of divine laws. In that state, the individual has lost his/her human ego, but conversely he/she feels the existence of God. He/she experiences the oneness of God. There is no existence, except the God's existence (Triyuwono, 2015). It is the highest spiritual achievement of human being. This is the reason of why Al-Hujurat 49: 13 declares that the most honoured human being in the sight of God is he/she who is the most pious (*taqwa*).

The main points of the definition are: consciousness, unity and relationship. There is no *taqwa* without inner consciousness. It is not based on human desire (physical intelligence), brain (intellectual intelligence) and heart (emotional-spiritual intelligence), but based on divine spirit, i.e. God's spirit (divine consciousness) that has been implanted in a holistic body of human (Triyuwono, 2015). Divine spirit can be metaphorised as an antenna that connects human being to God. Through this connection, an individual feels united with God. It is beyond human ego that finally an individual experiences the existence of God. Thus, there are no separate relationships between human beings with universe, human beings with their society, and human being with God. God is all-covering (*Al Muhith*), He is omnipresent. Universe and people are united with Him.

The Deconstruction Process: Pentuple Bottom Line (PBL) as a Concept of Managerial Performance

The ultimate end of human life is to return to God (Al-Baqarah 2: 156) through *taqwa*. *Taqwa* is the centre point in which an individual's consciousness has melted into, merged with and returned to, God. There is only one existence, i.e. the Existence of God. This is the ultimate spiritual journey of human life that becomes important orientation of this study to formulate managerial performance.

The main point of *taqwa* is the feeling of being united. Therefore, for the purpose of formulating managerial performance, the concept unites three main parties, namely, universe (planet), people, and God (Cf. Kaplan & Norton, 1992; 1996; Elkington, 1997). The focal concern of a business, for this study, is to generate and distribute the wellbeing of people and universe (Al-Anbiya 21: 107) physically, psychologically, and spiritually towards *taqwa* (Al-Hujurat49: 13) and for the sake of God. A company is found and run as an instrument to achieve *taqwa*, not for maximising profit as done by a modern company.

For TBL, profit, planet and people are the centre. Through deconstruction, the centre is coupled with the others, i.e., Prophet and God. Hence, the result of the deconstruction is: profit, planet, people, prophet, and God that we can call pentuple bottom line (PBL) (see Table 1). In essence, the concept is concerned with the achievement of the ultimate prosperity of human being, i.e. the awakened consciousness to be united

with God that consequently abides by His will (Molisa, 2011; Chodjim, 2014). God's will is spread over the universe, people, and prophet. God is never separated with universe, people, and prophet. He exists inside, outside and beyond them. This means that an individual should do good deeds to his/her self (body), to the universe, people, and prophet as representations of his/her honour and worship to God all the time and all over his/her life (Adz-Dzariyat 51: 56). All actions of human being, including doing business, are for worshipping God.

PBL directs management and stakeholders of a corporate to behave in such a way that is basically to respect and awaken human's divine consciousness, unity and union with God. The business objectives (i.e., to uplift physical, psychological, and spiritual prosperity) become the main concern for the sake of the universe and people. The business is not for the sake of capitalists, but for the universe and people for seeking the pleasure of God. PBL tries to enlighten our consciousness regarding the unity of universe, people and God that may ensure sustainability of nature and human's life and also awaken human's divine life. The concept will change the behaviour of management and stakeholders. Their concern will be long-term and guarantee to change human's behaviour to a better performance. Consequently, there will be a better harmony in environmental and social relationships and human's civilisation (Molisa, 2011).

Elements and indicators of PBL (as presented in Table 1) are the drivers that

have strong capacities to transform the behaviour of management and stakeholders. Each element and indicator can never be separated from each other. They are integrated and teleological.

The first tuple: profit, fulfilling the needs of human being. PBL does not negate profit. Rather, it gives a new meaning to it. For PBL, profit is understood as *sharia* value-added (SVA), which consists of economic, psychological and spiritual value-added that is acquired, processed and distributed in a *halal* way, or in accordance with Islamic law (the *sharia*) (Triyuwono 2012; Cf. Ali et al., 2013). *Zakat*, *infaq*, and *shadaqah* are parts of SVA. SVA may be imagined as a pie (prosperity) produced by a company and distributed to all parties that have the right to it. It has a concern not only on quantity and quality of the pie, but also on a fair distribution.

The quantity of the pie refers to how much money should be earned by a company. However, the quantity should be balanced by the quality which denotes to a process of earning money with good feelings (psychological) and spirituality (moral) such as, peace, happy, honour, love, sincerity, and so forth. Huge amount of money is meaningless without involving psychological and spiritual feelings in the process of acquiring and processing resources and distributing products to stakeholders. Hence, the meaning of prosperity (the pie) is not limited to money, but also to positive feelings and spirituality that can be tasted by stakeholders. SVA supports physical, psychological and spiritual needs of human being.

Under the SVA concept, distribution has a broader sense. The holistic pie is distributed to shareholders, creditors, management and employees, government, customers, suppliers, the poor and the needy, society at large, and nature, as accountability to God. A fair distribution is very important to ensure a broader coverage of prosperity enjoyed by stakeholders (Triyuwono, 2012).

The second tuple: planet, our homeland. Prosperity is dedicated not only to human being, but also to nature. Natural resources are mostly the materials manufactured to generate products for the interest of human's life. However, of course, the nature should not be exploited greedily by neglecting its health, wealth and sustainability. In generating SVA, management should comply with *sharia*, including how to treat our nature. Therefore, ethics is applied to maintain and support the life and sustainability of all creatures. Scholars (Ozdemir, 2003; Saniotis, 2004; 2012), based on al-Qur'an (Ibrahim 14: 19; Al-Hijr 15: 85; Al-Ahqaf 46: 3), argued that ethics on nature comprises unity, balance, harmony, and beauty. Ideally, management acts in accordance with the ethics to make sure that management has fulfilled the rights of the nature to be healthy, wealthy and sustainable.

Our nature will be alive if its unity, balance, harmony, and beauty are maintained. All living and non-living creatures are in unity. They live together based on natural law. People are also in unity with the nature. They will feel to be united if they use their inner consciousness. They have a capacity to feel what nature

feels. Moreover, it should be remembered that nature is united with God. He is inside and outside the nature. Thus, by respecting nature, we respect God. God, with His laws, makes the nature in balance, harmony and beautiful. All these principles of ethics are management's concerns to run the company. Management, in utilising natural resources and producing SVA, has a respectful duty to render prosperity to nature. Managerial performance is evaluated through the extent to which management has fulfilled the ethics for the nature.

The third tuple: people, unity in brother/sisterhood. People in a society are basically brothers and sisters (Ali 'Imran 3: 103 and 105; Al-Hujurat 49: 10) that consequently, every person in the society seeks to participate actively in rendering virtues to other people. Serving other people with a good deed (Al-Anbiyaa' 21: 107) is a clear orientation in delivering daily actions as a duty and worship to God (Adz-Dzaariyat 51: 56). If everybody has a consciousness to do good actions for other people, then automatically the people's economic, psychological and spiritual welfare will be lifted up. Management of a company has a duty to stimulate and unite people in brother/sisterhood through generating and distributing SVA and delivering virtues to the people both inside and outside of the company, of course, to those who have rights.

In order to do so, there is a need for cooperation, i.e., cooperation in doing virtues and avoiding bad deeds (Al-Ma'idah 5: 2; At-Taubah 9: 71). Cooperation is

needed not only for members of management inside a company, but for other stakeholders outside the company as well. Mutual assistance is a style of life that may unify closed relationships among members of society in a brother/sisterhood system. Hence, a company's management has a very important role to arouse the cooperation among members of stakeholders. It becomes a responsibility for management to do it. A success in fostering the cooperation is a managerial achievement in actualising a company's duty that may increase a good performance.

Every religion, including Islam, is undoubtedly full of duties and rights for its followers, be them in a relation of people to nature, or people to people, and people to God. Islam, according to Rice (1999: 349), puts a greater emphasis on duties. A deep meaning of the wisdom is that if everybody fulfils his/her duties firmly, then self-interest is automatically held within bounds and the rights of all are unquestionably safeguarded. This is what Rice (1999: 346) calls it as a "moral filter." It is reasonable because moral is actually based on inner consciousness. It is not just following external rules to deliver duties, but it is an expression of inner consciousness. It directs generation of an excellent mechanism to support cooperation and brother/sisterhood in a society.

The fourth tuple: prophet, the best example. Prophet Muhammad (peace be upon him) is the best example of a human being (al-Ahzab 33: 21) who always complied with, and actualised God's commands into daily life through his

divine consciousness. He was a person who went beyond human egoistic consciousness and reached an ultimate end of a spiritual journey, that is, *taqwa*. He was fully guided by God through divine consciousness. His personality and all the daily actions delivered by him are good examples for modern people today. Four main attributes mostly quoted and internalised by Muslims are: truthfulness (*siddiq*), trustworthiness (*amanah*), competence (*fathanah*) and advocacy (*tabligh*) (Anonymous, 2011).

Truthfulness (*siddiq*) (An-Najm 53: 2-4) is an attribute that denotes to correct words and actions. What is said and done is true. No words that are conveyed dishonestly (lying) and no actions that are delivered incorrectly. Truthfulness in this context may have two meanings. Firstly, the words conveyed themselves are true because they are from God. There is a consistency in

telling the truth, and the actions are also true because they are guided by God. Secondly, the words (that are true) are in line with actions (that are also true). In other words, there is no inconsistency between the words and the actions. Therefore, the reality that is constructed through the actions is also true.

Trustworthiness (*amanah*) (Al-A'raf 7: 68; Al-Anfal 8: 27; Al-Mu'minun 23: 8) refers to the worthy of being trusted. It is a trait in which a person is being trusted by other people because he/she is capable, reliable and honest. It indicates that a person has a capability to handle something that is trusted to him/her reliably and honestly.

Wisdom (*fathanah*) (Yunus 10: 100; Yusuf 12: 55; Al-Ra'd 13: 3) is a state of being wise that is represented by a possession of sagacity, insight, knowledge of what is true or false, and the capacity to judge and take a course of action justly. Maturity in experiencing daily life in a heterogeneous society strengthens quality of wisdom.

Advocacy (*tabligh*) (Al-Jin 72: 28) is an act of conveying truth through exemplary homemaker, a deep feeling of love, wonderful teaching and learning, and noble intention and attention. The act is delivered as a spiritual duty to enlighten people to have a better insight about the real purpose of life. Through the insight, reality of life can be better improved and constructed environmentally, socially and spiritually.

The fifth tuple: God, the ultimate end of life. The real end and happiness of human beings are to return to, and to meet God (Al-

Table 1
The Concept of Pentuple Bottom Line (PBL)

Concept	Elements	Indicators
Leadership	Profit	Sharia value-added (SVA)
	Planet	Unity Balance Harmony Beauty
Pentuple Bottom Line (PBL)	People	Brother/sisterhood Cooperation Duty and Right
		Prophet
	God	

Baqarah 2: 156). It is in the sense of human's spiritual consciousness that has already had a capacity to feel union with God. When a person has united with God, he/she is then automatically united with planet and people because God is also united with them. All are in union and within the "body" of God. Nobody and nothing is outside of God.

In a state of being united, a person can listen spiritually to the will of God and he or she can even make conversation with God. It cannot be done by using psychical ears and mouth, but by making use of a spiritual instrument we call divine consciousness. Divine consciousness in this context has a capacity to capture and comprehend divine will. Divine will function as guidance for a person to live and to interact with planet, people, and God. The person totally obeys and submits to the will of God. This is the meaning of Islam, i.e., total submission to the will of God. Under this condition, al-Qur'an (the will of God) has already been inside of the person's divine consciousness. Al-Qur'an is not outside and written on some pieces of papers or on a copy of software, but it has been united in the person's divine consciousness.

This is a meeting point, i.e. a meeting of human being with God. Or, it is a return point, i.e. a person's return to God that is achieved in a state of still being alive. Or, it is a *taqwa* point, the point in which a person feels united with God and totally submits to the will of God. This is the final journey of human being.

Pentuple Bottom Line (PBL): Crocheting the Values of Unity, Love, and Sincerity

PBL is conceptually and operationally based on the values of unity, love and sincerity (Triyuwono, 2015). The first value, unity (*tawhid*), as a basic teaching of Islam, unites the elements of PBL into a final end, i.e. God. Ontologically, reality is only one. If we find, in fact, varieties of reality, then they are actually one. They are the expressions of the One, the expression of God. Profit, planet, people, and prophet may be regarded as different realities, but they are one. They cannot be separated from one another, which means that when we respect profit, then automatically that we honour planet, people, prophet, and God. Or conversely, when we respect God, actually we respect profit, planet, people, and God.

The second value is love. PBL is not only crocheted by the value of unity, but also by love. Love is mediated by unity. Without unity, there will be no love, because there is no connection of one to another. What we mean by love here is true love. It is not human love that is based on human lust, but it is divine love. It is the love that is implanted by God to human feelings. Consequently, to love is only for the sake of God (Shomali, 2010, p. 15). Under PBL, to love profit, planet, people and prophet is to love for the sake of God, not to love for them.

The third value is sincerity. It is a state of undertaking an action without expecting any

reward from other person or party. It is a pure action that is delivered just for expressing love to God. It is also an expression of obeying divine will. There is no expectation to get monetary or non-monetary rewards, but rather it is for the pleasure of God. In the context of PBL, management delivers duties not for their-own interests, but it is an actualisation of loving God. Thus, there is no sincerity without love; there is no love without sincerity. And there is no love and no sincerity without unity (Cf. Shomali, 2010, p. 15).

There is a close interrelationship between unity, love, and sincerity (Cf. McKernan & MacLulich, 2004) that all of them are basically related to spirituality. PBL conceptually and practically is based on these spiritual values. As a concept, PBL does not follow positivism which claims that science must be free from values, subjectivity, interest, politics, and so forth. PBL is an integrated concept based on the Islamic values, as argued by Tinker (2004, p. 452) that “[m]aterial and spiritual life are not bifurcated; they form part of an essential unity.” This argument implicitly supports that science is never separated from values. He further argues that “Islam is “Enlightenment”... in that it rejects the division of the secular and the non-secular, and more generally, the separation between church and state. Indeed, Islam is not merely a “personal” religion; but... is also an organisation for society, its institutions, as well as a guide for conduct of individuals within that institutional and social context (Tinker, 2004, p. 452).

Because of the values, and to practice PBL, there is a need for involving not only intellectual and emotional intelligence, but also spiritual intelligence. In this context, accounting is indeed not a simple calculative instrument (Tinker, 2004) that is the end in itself, but more importantly is an instrument that can awaken human inner consciousness. Molisa (2011, p. 456) has already put this concern by saying that “I suggest... that the kind of accounts and accountability practices informed by this spiritual perspective are those I’ve called *awakening accounts* and *awakened accounting*: and accountability practices which are either carried out by people already in a state of “awakened doing” or whose fundamental purpose is awakening; the realisation of spiritual enlightenment” (italics in original). PBL is a concept that has already awakened through deconstructing TBL that is totally secular and entraps an individual into secular consciousness. This awakened concept is also ideally run by people (management) who have already awakened. So by practicing PBL, people (society) will be awakened to a better consciousness and guided to a new heaven and new earth (Molisa, 2011, p. 453).

CONCLUSION

A construction of managerial performance is not void from cultural, social, ideological, religious and spiritual values (Burchell et al., 1985; Gambling & Karim, 1986; Baydoun & Willett, 2000; Gallhofer & Haslam, 2004; McKernan & MacLulich, 2004; Tinker, 2004; Kamla, 2009; Molisa, 2011, p. 453).

In a secular, individualistic and atheistic culture, maximising profit is an acceptable goal. It is reasonable because in that culture, a society has a perception that there is no God and hence there is no life in hereafter. The life for the society is only the worldly life. Consequently, seeking for secular happiness is logical and even the society reduces the happiness into money, the profit. Money is the orientation of life.

However, for a theistic society, the concept is regarded to be incomplete because the wealth is not only secular, but also the psychological and spiritual. Moreover, for the sake of returning to God, the wealth is produced and distributed to a broader coverage, that is, to nature and people. For that reason, a concept of managerial performance is constructed to stimulate divine consciousness. PBL is an alternative concept of managerial performance as a result of deconstructing the existing concept. Its elements and indicators have a capacity to awake human's divine consciousness because they comprise a holistic concept of wealth and a broader coverage of wealth distribution. For humans, divine consciousness is a spiritual instrument utilised to connect to, to unite with, and to return to, God. This is the ultimate destination of human's life.

This study is not a positivist research which normally tests a theory based on empirical data; rather, it is a non-positivist research, precisely a spiritualist research that tends to construct a new theory or concept;

in this case is the Pentuple Bottom Line (PBL). PBL can then be tested based on empirical data through a positivist research.

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The Role of Nomination Committee in Selecting Female Directors: A Case of Malaysia

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ABSTRACT

The growing importance of board diversity among directors has been established as a result of global financial crisis in 2008. According to the Malaysian Code of Corporate Governance 2012, nominating committee shall be responsible to select directors with diverse background that meet the needs of the company. This paper attempts to examine the impacts of having female directors in a nomination committee on gender diversity on board. For this purpose, 393 (50%) non-financial Malaysian listed companies were selected for the three year period of 2011 to 2013. Results indicated that having female directors in a nomination committee is significantly related to the level of gender diversity on board. The results also signify the importance to have female directors in nomination committee as it will influence gender diversity on board.

Keywords: Gender Diversity, Boards of directors, Nomination Committee, Malaysia

INTRODUCTION

Corporate governance studies are frequently motivated by desire to explore how boards work and how their conduct may contribute to value creation (Filatotchev & Boyd, 2009; Huse, Hoskisson, Zattoni, & Viganò, 2011; Ramly et al., 2015). In the second half of 1997, the world witnessed the collapse of East Asian economies. Corporate governance in private sector were developed after this period. In Malaysia, introduction of Malaysian

Code of Corporate Governance (MCCG), establishment of legal and stock market regulation and foundation of new authorities were among the efforts to create better governance among corporate players in Malaysia. One of the aspects addressed by the MCCG is the establishment of

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nomination committee. The main role of nomination committee is to select future directors for the company. Thus, nomination committee plays vital role in selecting and appointing the right board members because it will subsequently determine the composition of the board. Despite the important role of the nomination committee in the structure of corporate governance, it does not attract much attention among the scholars.

Social identity theory provides a classification of people on numerous social groups such as sex (gender), ethnic group, learning, or career. Each group is supported by some standards and stereotypes of communal group association, which are reflected in the behaviour of the people. Therefore, each social group has an influence on individual's definition of personality based on the characteristics of the assumed communal group (Williams & O'Reilly, 1998). As a consequence, a female nomination committee member may positively see another female candidate as possibly enhancing her otherwise marginal representation on a board, strengthening sense of defence, personality and confidence, and hence, she will likely desire a female nominee selection. Thus, the objective of nomination committee should lie on adapting board composition to the requirements introduced by a companies' external environment. Moreover, the group efficiency and diversity literature are being employed (Milliken & Martins, 1996) to clarify how board diversity will improve a board's competence towards successfully

accomplish its policy role. The two most significant mechanisms in forming social identity include self-categorisation and social comparison (Lynall, Golden, & Hillman, 2003).

This paper contributes to the existing literature in two ways. First, it adds to our understanding on the relationship between nomination committee and board composition, specifically with respect to gender diversity. Second, it sheds light on the role of nomination committee in selecting diversified directors.

GENDER DIVERSITY

Gender diversity is considered as one of the important types of diversity in the view of regulators. For instance, corporate board gender quota was first introduced in Norway, and this was later followed by other countries like Spain and Malaysia (Ramly et al., 2015). Proponents of gender diversity argued that female directors are needed in the board due to their advanced level of educational degrees and ability to bring different perspectives as compared to their male counterparts (Hillman, Cannella, & Harris, 2002; Ruigrok, Peck, Tacheva, Greve, & Hu, 2006). Moreover, it has been found that effectiveness of female directors can be identified in board planned participation (Nielsen & Huse, 2010a, 2010b), as well as planned and operation management and board negotiations (Huse, Nielsen, & Hagen, 2009).

Conventional opinions in opposition to females are nevertheless well-established, particularly men's occupation by tradition

such as managerial and executive positions. In general, females are seen as deficient in necessary executive features and less proficient than their male counterpart since womanhood is more likely to be related with “public” (societal and service focused) instead of “agentic” (success focused) features, which a lot consider as the feature of an excellent director. In the East, gender inequality is as yet a distinctive characteristic, where the insight and position of females keep on to being settled as tradition and are regularly congruent to passive and obedient manners, embracing family tasks and offering assistance to the men of the family. The occurrence of Confucian principles and the Chinese family commerce sample all over East Asia (Claessens et al., 2000) have reinforced family patriarchal ways of power by tradition inside the industry world. However, these patriarchal customs still continue to exist in the present Asia, with fast financial and political expansion has resulted to deep changes in the public and customary normative organisations (Brooks, 2006). These transformations are shown notably through high rates of contribution of womens’ effort and the actuality that there are presently more females than males having a tertiary education in most of Asia (Yi, 2011).

Malaysia offers an additional appealing case, as the power of the long-established Chinese family companies are customised through government-rank positive act supporting the majority bumiputra (native Malays with the Islamic belief) (Singam, 2003). Corporate governance ways

and communal approaches developed on sturdy religious, as well as ethnic customs, are progressively more subjective by globalisation and present principles concerning women (Koshal, 1998). Prior to the 1960s, a usually thought principle was that females were perfectly appropriate as housewives, and even whilst been knowledgeable, they ought to work as educators, care givers or in “womanly” career alike. Nevertheless, financial increase and liberalisation have resulted in transformations in communal principles concerning women’s contributions in the workforce in countries like Singapore. As oppose to an environment of comparatively little rank of women corporate board directors (Zainal et al., 2013), the Malaysian Cabinet in 2012 allowed it a must for companies to comprise at least 30% women depiction in boardroom rank position by 2016.

However, amid definite sectors, the rise in feminism is viewed to disagree with the main of Islam, which is the main belief in Malaysia. Islamic fundamentalism declares that the key functions, as well as tasks of women “are in the family — as submissive wives and devoted mothers and daughters”. As a result, women are given the responsibilities of care-givers and nurturers for the male components of their families, whereas men are in charge of their wellbeing as well as security. In actual fact, an added open-minded structure of this public speaking declares that females must only be approved to go after own dreams (e.g., a profession) through the unambiguous

consent of her spouse. For this reason, Malaysian women experience not merely the partialities originating from a worldwide legacy of patriarchy (worldly patriarchy), but the unfairness which surfaces from Islamic beliefs, decrees and rules which are over and over again gender-biased (Muslim patriarchy) as well.

Put in opposition to a background of improved discussion over corporate governance constitutions and gender parity in Asia, this paper symbolises a single early effort to explain for ethnic dissimilarities in analysing the Anglo-American model of branched out board membership. As Asian women are in general restricted to household and family responsibilities, the effects of women board depiction on company's economic deeds might not be similar as that revealed in the previous study. Board diversity makes sure that an extensive foundation of knowledge is present and boards made up of diverse genders, ages and racial groupings are capable of seize benefits of the dissimilarities to create a successful company. In contrast to the rest of the characteristics of board diversity, gender diversity has gotten a great deal of interest in the community and research fields equally (Erhardt et al., 2003). It is disputes that females enclose "an unfathomable and personal understanding of buyer markets and clients" (Stephenson 2004). According to Stephenson (2004), females in North America are in charge of 80 percent of the domestic expenditure and purchase over 75 percent of every product and service. In addition, Carter et al. (2003) declared

that variety would enhance originality and novelty, which could sequentially result in an effectual making of choices.

NOMINATION COMMITTEE

In recent years, nomination sub-committees, board audit and remuneration have been constantly supported in corporate governance codes in many countries. Waring and Pierce (2004) pointed out that even though audit and remuneration committee shear have been extensively spread with a rapid acceptance, NCs have usually been the last to be recognised. Based on the statistic references, postal investigation of Times 1000 companies, the FTSE350 (Gay, 2001), and the Global Vantage database (Vafeas & Theodorou, 1998; Dedman & Lin, 2002), it can be said that by 1999, almost 85 percent of the firms' boards consisted of audit and remuneration committee, yet nomination committee was not initiated.

The stigma related to corporate governance has always been on cronyism as this issue will definitely affect the ability of companies to attract investors. It cannot be denied that cronyism is damaging to the need for competition on a level playing field, thus hindering the development of the company, which is against the principle of acting in the best interests of the company as a whole. Hence, due to the possibility that the management may steer the conduct of the company in a way to benefit themselves rather than the shareholders, MCCG provides for, among others, a nominating committee to be established where one of its function is to nominate and appoint

directors to the board. The outcome of a good corporate governance compliance started with the board of directors who were essentially involved in the management of the company.

In addition, the growing awareness to have female directors of various skills on the board has been one of the factors for the creation of nominating committee. Although there is a growing trend to form nominating committee in companies, the concern of how effectively they are being exercised lingers. Seeing the importance of the nominating committee in a company, it can be said that the appointment of the female members of nominating committee is indeed a major thing to be considered. Their appointment should not be just for the sake of complying with the requirements needed under the MCCG 2012 so that the company could enhance their legitimacy to the public's eyes.

BOARD COMPOSITION

The function and influence of audit, as well as the compensation committees and the existence of autonomous directors, have been relatively recognised at the beginning of accounting and executive remuneration committee's issues (Canyon & Peck, 1998; Klein, 2002). The concern about board structure is essential to board's efficiency and enactment. Furthermore, it eventually assists to confirm that the appropriate people are nominated to become part of an audit and remuneration committee. The basic issue of board structure is extensively analysed and examined in the corporate governance

studies, however, typically with an agency viewpoint which attributes the major interest in directors' independence.

Regarding the perspective of agency, boards are the inner key components which observe and supervise firm directors. Therefore, it is vital that firm managers are not reliant on firm management. Moreover, to achieve directors' board functions and accomplish real contributions, the levels of their skills and abilities are frequently examined. These observations propose that the board structure is a main beneficial element in their effectiveness. Corporate governance studies frequently discover how boards function and how their management can be enhanced to assist in the value construction. Furthermore, the demand for superior hypothetical heterogeneity insists. Despite all these facts, board and other committees continue relatively under-investigative development (Carpenter & Westphal, 2001).

In academic studies, the diversity notion is being frequently applied to team/group dynamics and it is also applied to board dynamics (Williams & O'Reilly, 1998; Webber & Donahue, 2001; Harrison & Klein, 2007; Joshi & Roh, 2009). This paper priorities focus on the correlation involving board gender diversity as an outcome (e.g., Carter, Simkins, & Simpson, 2003; Erhardt, et al., 2003; Nielsen & Huse, 2010a, 2010b). Whilst it is unquestionably a vital effect of diversity, it unwraps the problem to what could be probable backgrounds of diversity in the boardroom; thus making it a focal point of the paper.

NCs are the central point in the selection of directors; they are also the reason at which degree the board can be diversified. Board diversity is considered one of significant contemporary topics, the various actions of countries are such as: (1) Norway introduced corporate board gender quotas which require that board must consist of 40 percent female; (2) Australia passed the provisions advising firms to supply rules and assessable goals to gender diversity on board; (3) Malaysian Code of Corporate Governance emphasised on the higher proportion of gender diversity in each firm and the proportion of females needs to explicitly disclose in the annual reports; (4) US Securities and Exchange Commission is putting into effect fresh laws which compel firms to provide disclosure on to deal with gender diversity when nominating directors to the company board. UK Corporate Governance Code (Financial Reporting Council, 2010) expressed the

importance of gender diversity by giving a number of ethics to UK-listed firms has yield on a “comply-or-explain” basis. The subsequent FRC Guidance on Board Effectiveness (Financial Reporting Council, 2011) also strongly emphasised diversity as an influential assumption for useful boards, proposing that “a board is not constituted mainly of same minded persons” and its directors “have the intellectual potential to recommend transformation to a projected policy, and to declare other options.” Accordingly, this paper examines board diversity in terms of gender as the initial composition result to be defined by the composition of the NCs.

THEORETICAL FRAMEWORK

The following theoretical framework shows the relationships among the variables (Figure 1). Gender diversity as a board

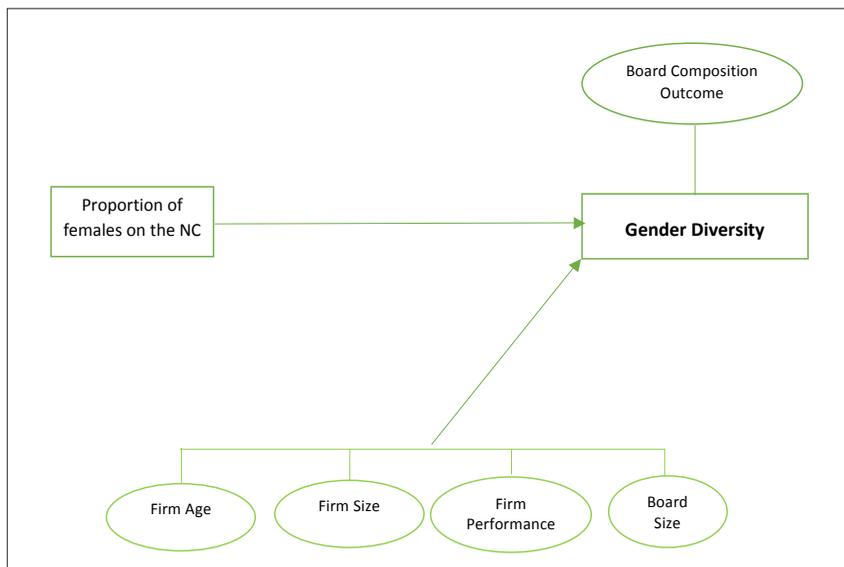


Figure 1. Theoretical Framework of the Study

composition outcome is the dependent variable in this paper. NCs attribute is presented as presumable predictors of diversity which can occur on a board. One independent variable was taken into consideration for proportion of females on the nomination committee to determine the role of nomination committee in selecting diversified board of Malaysian listed firms in Bursa from 2011 to 2013. Besides, the above key variable's study considered four controlled variables – firm age, firm size, firm performance and board size.

HYPOTHESIS DEVELOPMENT

The theory dealing with social identity suggests that people are divided by different social groups based on gender, ethnicity, education and profession. Each group is bound by rules and conceptions according to its social category membership which will have influence on its behaviour (Ashforth & Mael, 1989; Hogg & Terry, 2000). Therefore, each social category represents specific qualities which have impacts on social group's members. A higher number of female nomination committee members may increase their minority representation, enhance the view of safety measures, individuality and confidence, and privilege the nomination of female candidates.

From the above argument, the high number of female representation in the nomination process will lead to a greater number of female board candidates. Female's presence in the NC influences its members, supports gender equality matters and possible obtains new and distinct

perspectives. Thus, the study assumes that female's higher proportion in NC will lead to a greater level of gender diversity in the whole board.

H1. There is a positive association between proportion of female directors on the NC and gender diversity on the board.

MALAYSIA CORPORATE SECTOR

In 1990s, a significant expansion was observed in the Malaysian corporate sector, which showed an increase in the amount of listed companies Bursa Malaysia from 285 (in 1990) to 708 (in 1997) as a consequence of the beginning of the second board of the KLSE. Also, smaller firms with better future progress chances were permitted to join to capital market. However, a very little growth was seen later in 1998 due to the Asian Financial Crisis in 1997/98. Afterwards, the new companies' growth increased until 2006, but after the 2007/2008 global crisis, many companies were delisted. Figure 2 shows the breakdown of the total number of corporations named in Bursa Malaysia from 2003 to 2013 that reflected the trend.

Corporates are considered an important pillar of economic prosperity and internal regulatory reforms, further improve the governance structure in the organization. This paper selects the Malaysian listed corporation and interested to identify the nomination committee role in selecting diversified board. Currently, two primary classes of public listed corporations in Malaysia are available: (i) large privatised entities such as Telekom Malaysia, Tenaga

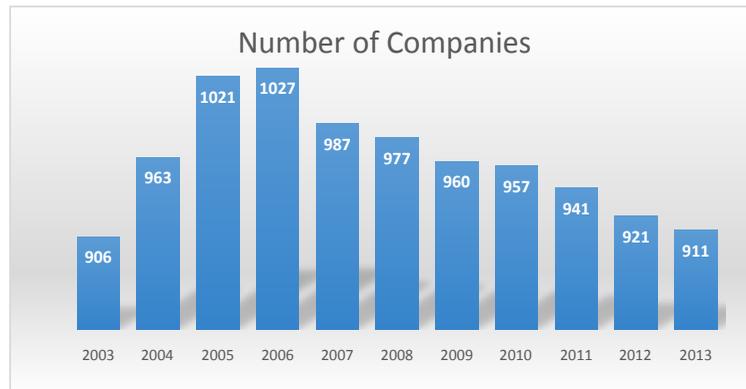


Figure 2. Listed companies in Malaysia

Nasional and Petronas Dagangan; and (ii) smaller-sized corporations, which are mostly owner-dominated initiatives, looking for different channels to elevate wealth (Report on Corporate Governance, 1999). Therefore, the corporate sector in Malaysia encompasses of corporations with distinctive features which are dissimilar from other capital market in established countries. Supplementary to that, it justifies the significance of studying corporate governance in Malaysia, especially its nomination committee role in director nomination process for diversified board.

METHODOLOGY

A sample of 50 percent companies are considered from a total population of 924 companies in the period of 2011 to 2013. In this paper, nine non-financial sectors were considered to examine the role of nomination committee in selection the diversified board, sectors comprising on Trading/ Services, Consumer products, industrial

products, plantation, property, construction, technology, hotel, and mining. Financial sectors are excluded because financial companies are subjected to different set of regulations in Malaysia.

Blau's index (Blau, 1977) is considered as one of the traditional measures of diversity and it measures the dispersion of features in a grouping; the other is Harrison and Klein's (2007) which demonstrates three various compositions of diversity; separation, variety and disparity. Thus, this study measured gender diversity using the Blau's index.

The paper is also interested in the attributes of several firms that may influence gender diversity as a board composition outcome. The better the company performs, the superior the possibility of corporation creativity and innovation will be, including encouraging directness and worldwide viewpoints that can be attained through employing female and different ethnic directors to the board. An accounting based

measure of performance, ROE, is used in line with the proof that accounting based measures of performance are linked more with board's procedures. Size of a firm is measured by overall sales of the firm. Superior corporations regularly need to enhance board capability which can also be represented by greater acceptance for varied environments of directors that, in turn, may influence the probability of board separation. A firm era refers to a number of years since the firm was established. Long recognised corporations are more probable to encirclement intensely entrenched procedures which discourage them from employing directors from diverse backgrounds (Minichilli, Corbetta, & MacMillan, 2010). The paper also controls for board size that is prone to impact board composition outcome.

This research used secondary data that are accessible from corporations' yearly reports available on Bursa Malaysia. As for the preliminary data analysis, descriptive statistics, correlation tests and graphical presentations of ethnic groups were analysed in order to determine the role of nomination committee in selecting diversified board.

MODEL

The previous studies claimed that females on NC add value by improving level of gender diversity on board. In order to examine female's proportion on nomination committee matters (H1), this paper estimated a simple model equation that

shows relationship between females on NC and gender diversity. ROE, firm size, firm age and board size were used as control variables. The model is stated as in Eq. (1).

$$Gender\ Diversity_{it} = \beta_1 Female\ NC_{it} + \beta_2 LnROE_{it} + \beta_3 LnFirm\ size_{it} + \beta_4 Firm\ age_{it} + \beta_5 Board\ size_{it} + \epsilon$$

Where,

- FGender_i* Gender i, is the diversity index,
- FemalesNC* Females on NC, measured as the proportion of females on NC by the board size
- LnROE* Natural log of ROE, measured by net income by shareholder equity.
- LnFirm Size* Firm size, measure by the natural log of total sales of the firm.
- Firm age* Firm age, count, no of year since firm establishment.
- Board Size* Board size, count, no of directors, serving on the board.
- i* Firm i
- t* Year
- ε* Error term

RESULTS

Table 1 presents descriptive statistics and results of the variables. The average gender diversity on board is 0.1178 and females in the Malaysian firm's NC constitute the average of 0.0609, whereas the largest board

size is 14. The largest standard deviation is 1.83878 of firm size, which is not very high and this indicates less variation in the data. In addition, ROE and firm age have a negative skewness of -0.085 and -0.68, respectively. Females on NC have 4.107 kurtosis, which is more than 3, which is said to be leptokurtic. Nevertheless, the paper cannot rectify this as it causes reduction of other important observations of the data, making it very useful for a follow-up analysis.

is explained briefly to give more insights into gender diversity.

Figure 3 presents line graphs, which offer more insights. Gender diversity fluctuates and board size also constantly fluctuate with some spikes, with females on NC presented in a descending order. Therefore, it can be said that a pessimistic connection involving gender variety and optimistic association, amid board magnitude, is available. Figure 3 presents 3-year data of the 393 nonfinancial companies listed in BURSA, Malaysia.

GRAPHICAL EXPRESSIONS

In order to see the actual association of gender diversity at board level with board size and proportion of females on nomination committee, graphical expression

CORRELATIONS TEST

Table 2 presents the results of correlations test. Gender diversity on board has a strong relationship with females on NC and board size at 1% significant level. This means

Table 1
Descriptive Statistics of NC and Board Characteristics

	Gender Diversity	Female on NC	LnROE	Lnfirmsize	Lnfirmage	Board Size
Mean	.1178	.0609	2.1067	12.1556	3.2964	7.25
Std. Deviation	.15507	.13732	.93865	1.83878	.66294	1.920
Skewness	.839	2.165	-.085	.009	-.068	.872
Kurtosis	-.748	4.107	.883	.436	.011	.842
Minimum	0	0	0	4.51	1.10	4
Maximum	.50	.75	6.07	17.68	5.22	14

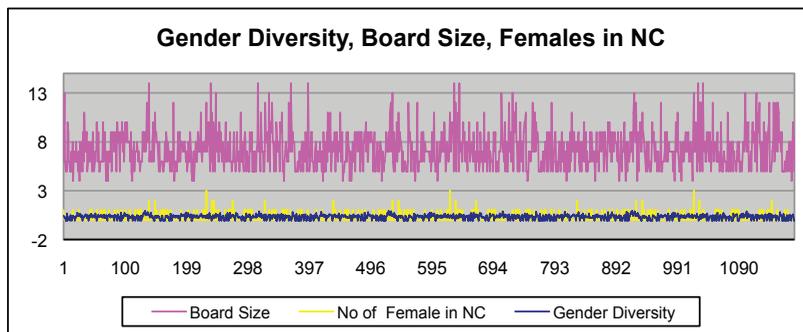


Figure 3. Graphical expression of Females in NC, Board Size & Gender Diversity

females on NC have a strong positive association with gender diversity, firm size and board size at 1% significant level, which means that females on NC do have impact on the overall gender diversity at board level.

The results also indicate that gender diversity and females on NC have weak positive relationship with ROE due to

zero or less number of females on board at 1% significant level. However, ROE and firm age have a weak positive association with level of gender diversity and females on NC. Hence, results of 2-Tailed show a statistically significant and positive correlation between females on NC and level of gender diversity on board.

Table 2
Descriptive Statistics of NC and Board Characteristics

Correlation	1	2	3	4	5	6
1 Gender Diversity	1	.561**	.044	.029	.005	.116**
2 Females n NC	.561**	1	.014	.090**	.025	.095**
3 LnROE	.044	.014	1	.293**	.053	.150**
4 LnFirmSize	.029	.090**	.293**	1	.376**	.380**
5 LnFirmAge	.005	.025	.053	.376**	1	.136**
6 Board Size	.116**	.095**	.150**	.380**	.136**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.558a	.311	.307	.13253

a. Predictors: (Constant), Board Size, PFN, Lnfirmage, lnROE, Lnfirmsize

b. Dependent Variable: Gender Index

REGRESSION ANALYSIS

Table 3 which showcases model summary indicates that the overall regression model is significant.

Table 4 below presents the results of regression test which was conducted on the proportion of females on the nomination committee with regard to gender diversity in the board. The results show that there is a significant positive relationship between

Table 4
Regression results using Gender Diversity as a dependent variable

	Model			
(Constant)	Coef.	t	Sig	VIF
Females on NC	.130	3.788	.000	1.009
LnROE	.614	19.766	.000	1.099
Lnfirmsize	.008	1.711	.087	1.420
Lnfirmage	-.006	-2.090	.037	1.145
Board Size	-.004	-.527	.599	1.187

the proportion of females on NC and the level of gender diversity on the board at 5% significant level. The regression results also validate that there is a collinearity issue as the VIF value is less than 5. Hence, the results support our hypothesis.

The above results also illustrate that the performance, firm size and firm age are not significant at 5% significance level. The results also reveal that the board size has a positive impact on gender diversity. However, all four control variables VIF are less than 5 and thus, there is no collinearity.

CONCLUSION

Based on the findings, it can therefore be concluded that a significant impact of board procedure and results could credit not just to the work of the entire board but also its sub-committee. There are varying views of studies conducted. For example, Ruigrok et al. (2006) insisted that NC has a valuable force on board composition, whereas Vafeas (1999) said that there could be a changeover consequence involving the NC and other governance methods like insider ownership. Meanwhile, McKnight, Milonas, Travlos, and Weir (2009) proposed that the occurrence of NC could be pricey.

However, MCCG's emphasis to adopt NC since 2000 and uniformed compliance of companies with this recommendation at present demonstrate that one of the important steps in forming well-composed and effective board is to have board succession process. This paper has provided evidence to show the importance of NC in board succession process, by their power on one

category of board composition outcomes such as diversity as variety (gender).

The examination of the three-year data, with the reflection of responsibility and influence of NCs on composition of firm's board in Bursa, 393 companies were provided by portrayal on the theoretical frameworks of social identity. The purpose of investigation is to enhance the under-researched area among board committees by applying the single theory approach to discover the interconnection involving NCs and board composition, which is crucial in the selection and appointment processes. Based on our findings, we can therefore draw conclusion that the structural characteristics of NCs have significant influence on compositions of board's outcomes. The propositions of our results are well-timed in the stir of calls for boards to appoint more female directors from various backgrounds. It was found that board gender diversity is positively influenced by increasing existence of females on NC.

Future researchers are required to interview the consequences of certain board by, for instance, increasing qualitative study of how they work and to which consequence. This paper adds to NC study by giving sturdy numerical data of the consequences of NC characteristics on probable board composition during a three-year time of the Malaysia's scheduled non-financial firms. Results are pinpointing essential fundamental basic of director selection and selection procedures in board backgrounds from an Asian financial system that could

be significant in the rest of backgrounds. We recommend further studies to look into this issue so as to provide diverse frameworks to get deeper view in the function and power of NCs in creating crucial board's decisions concerning director's selection in which corporate governance is in due course reliant.

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The Influence of Leadership Styles on Subordinates' Integrity in Malaysian Local Authorities: The Mediating Role of Trust

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ABSTRACT

The purpose of this study is to examine the influence of leadership styles on integrity and to test the mediating role of trust in the relationship between leadership styles and integrity using 300 questionnaires responded by the employees (support staff group) of local authorities located in the central region of Peninsular Malaysia. The measurement scale employed in this study has met the acceptable level of validity and reliability tests of the study. However, performing confirmatory factor analysis (CFA) based on structural equation modelling (SEM) has remained two of three components of the second order measurement model of transactional leadership. They are contingent reward and management by exception (active). The management by exception (passive) was omitted for further analyses. Some items of the first order measurement model of transformational leadership were also deleted through CFA. Regression results of the SEM analysis indicated that integrity was not directly influenced by the transformational leadership and transactional leadership through the presence of trust as mediator. Trust mediated the relationship between transactional leadership and integrity. Further, this study provided the discussions and implications of the findings.

Keywords: Integrity, transactional leadership, transformational leadership, trust, structural equation modelling

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INTRODUCTION

The leadership styles, namely, transformational leadership and transactional leadership were introduced by Burns (1978) and further discussed by Bass and Avolio (1991) to form the standard leadership framework for active entities (Bass, 1985;

Bass & Avolio, 1993). Both styles have been described famously in many studies as being related to the area of human resource development. Earlier, a traditional leadership style, which is transactional leadership, is related to financial deals, reward exchange or cost-benefit idea (Blanchard & Johnson, 1985; Konovsky & Pugh, 1994). These leadership behaviours are related to contingent reward (rewards are provided in exchange for the agreement to achieve the targets or the leaders' expectations performed by the followers) and management by exception (the leaders help when followers do wrong things by employing noticeable ways to conduct the right procedures) (Burns, 1978; Bass, 1985; Howell, & Avolio, 1993; Lowe et al., 1996).

The globalisation phenomenon makes dynamic organisations shift the transactional based leadership to another leadership style, i.e. transformational leadership. Transformational leadership is much more related to individualised considerations (i.e., leaders concern about followers' wants and give them training to perform in a cooperative work environment), intellectual stimulations (i.e., leaders ask followers to think their own way of doing things by instilling their innovation and creativity), inspirational motivations (i.e., leaders always articulate attractive and meaningful future goals of the organisation) and idealised influence (i.e., leaders who are very strongminded, insistent and frequently stress on attainment of their mission, as well as take individual role and duty, and demonstrate high ethical level and behaviour in generating trust of their

followers) (Bass & Avolio, 1993; Twigg et al., 2008). The basic idea of transformational leadership is more on interpersonal contract instead of financial contract where it biases on the social exchange (followers respect their leaders and able to do out of the scope of recognised job agreements), promised (mutual commitment of leaders and followers to the welfare exchange) and psychological contract that refers to a confidence believed by an individual upon the terms of the exchange contract to which that individual is a party (Burns, 1978; Kanungo & Mendonca, 1996; Settoon et al., 1996).

Research in this field found leaders who properly practice the leadership styles (transformational and transactional leadership) would have an impact on integrity among the employees at work place (Etter & Palmer, 1995; Gini, 2004; Porter, 2005; Porter, Webb, Prenzler, & Gill, 2015). Scholars like Clark and Payne (1997) define integrity as individuals' trustworthiness in getting others' trust by displaying good values like responsibility, sincerity, dedication, moderation, cooperativeness, diligence, clean conduct, honour and gratitude. In good governance perspective, integrity could be related to employees' ethical values that really affect the quality of service delivery by the employees. As a result, internal stakeholders and public will reciprocate with trust in organisations. However, integrity is also defined in different angles of good governance perspective, which is an avoiding of any action to influence others' credibility of work due to individual

personal interest through the presence of outside third party (Nolan Committee's on Standards in Public Life, 1995). The action of avoidance in this context is developed from the ethical values of integrity that provide strength and direction to individuals in fighting any misconduct.

PROBLEM STATEMENT

In a leadership study area, it is found that an association of transformational and transactional leadership with employees' integrity has been discussed, and much debate has been conducted in organisational leadership literature (Green, 1997; Luthar, 1997; Mc Devitt, 1997; Trevino et al., 1998; Brown, 2003; Robertson, 2004; De George, 2006; Roslan & Nik Rosnah, 2008). Nevertheless, how such leadership styles influence employees' integrity is less emphasised in the direct relationship based research (Etter & Palmer, 1995; Schneider, 2009; Porter, Webb, Prenzler, & Gill, 2015) and little is known about this relationship in the local authority leadership model. Surprisingly, through extra revisions, it is confirmed that there are indirect influences of transformational and transactional leadership on integrity through the effect of trust among the employees (Fishbean & Adjzen, 1975; Mayer et al., 1995). Trust can be understood based on various interpersonal and organisational constructs (Kramer & Tyler, 1995; Duck, 1997). For example, fairness, confidence and risk taking are considered as three main constructs of trust (Erturk, 2008) whether interpersonal or organisational based.

Rousseau, Sitkin, Burt and Camerer (1998) also mentioned that the variety of definitions of trust shows three main constructs of trust. First is the expectation or belief that relates to confidence; second is the willingness to be vulnerable that relates to risk taking, and third is dependency on another that relates to fairness, benevolence, ability and other organisational characteristics. Within a leadership framework, the leader who rightly behaves with transformational (i.e., idealised influence, inspirational motivation and individualised consideration) and transactional styles such as contingent reward, management by exception (active) and management by exception (passive) in leading an organisation may drive to an increased trust among the employees to their organisation (Casimir, Waldman, Bartram, & Yang, 2006).

LITERATURE REVIEW

Relationship between Leadership Styles and Integrity

Research on organisational integrity has been conducted using a direct effect model based on different samples; 227 Turkish employees who work in organisations in Istanbul (Otken & Cenkci, 2012), 142 respondents who lived in Istanbul (Erben & Guneser, 2007). Other than that, scholars had emphasised on the role that should be demonstrated by the leaders in developing an ethical model in organisations (Schminke et al., 2005; Newbert et al., 2009). Findings from these studies indicated that a proper practice of transformational style by the leaders (i.e., granting favours and setting

moral examples) and transactional style (i.e., authoritarianism) in leading subordinates has been a major determinant of organisational ethical integrity.

Relationships between Leadership Styles, Trust and Integrity

A study used a direct effect model to examine transformational leadership based on a sample of 203 employees from large companies in South Africa. This study revealed that the transformational leadership practiced by the leaders in their jobs (i.e., social exchange such as followers are given the chances by the leaders to make decision, accept followers' ideas, and treat followers fairly) had made followers to be more ethical integrity in doing their work (van Aswegen & Engelbrecht, 2009). The finding of this study is consistent with the statement of the organizational leadership theory. It stressed that fairness, the ability and benevolence of leaders such as constancy, no biasness, correctness, morality, and representativeness in decision making could affect progressive subsequent personality and character outcomes (Burns, 1978; Bass, 1995). The relation of this theory to a leadership model clarifies that the proper behaviours of transformational leaders in doing jobs (e.g., simplicity of work system, communication directness, involvement and sharing of power) will strongly raise followers to be more integrity (Palanski & Yammarino, 2009).

Burns (1978) also mentioned that followers' moralities may increase when there is mutual understanding between

leaders and followers. Mutual understanding could be developed through the process of transactional leadership style, especially based on contract and economic exchange between leaders and followers (Azman et al., 2010). Meanwhile, according to Bass (1985), the collaboration between leaders and subordinates in implementing the jobs can foster subordinates' performance as well as encourage them to forget their personal interests and prioritise the organisation's interests. The importance and congruence of those theories to the leadership research framework are the followers' attitudes and their sacrifice toward organisational interests can be realised if leaders solve immediate problem, focus on task and reward performance (Pillai et al., 1999; Tatum et al., 2006). There will be enhancement of followers' integrity and they will do their job productively when transactional style is effectively implemented.

Basically, both leadership styles are able to affect followers' trust, especially on their leaders. This could lead the followers to perform their positive attitudes and behaviours. All these relationships have been significantly revealed from the model of trust developed in the study by Mayer et al. (1995). Therefore, integrity is indirectly created through the positive attitudes and behaviours demonstrated by the followers when they have trust and belief, mainly when the leadership styles performed by the leaders are based on the trustworthiness characteristics such as ability, benevolence and leaders' integrity (Mayer et al., 1995). For example, transformational leaders

perform their integrity based on procedural justice approach by treating followers fairly, meanwhile, transactional leaders show their integrity through distributive justice approach, in which equitable outcomes are provided to the followers based on their contributions such as fairly appreciating their supports, supporting their individual

welfare and maintaining social harmony equally (Azman et al., 2010). As a result, it drives to followers' trust (Pillai et al., 1999) and subsequently leads to acceptable individual outcomes (Konovsky & Pugh, 1994) that reflect on followers' integrity. From the literature, this study develops a conceptual framework as shown in Figure 1.

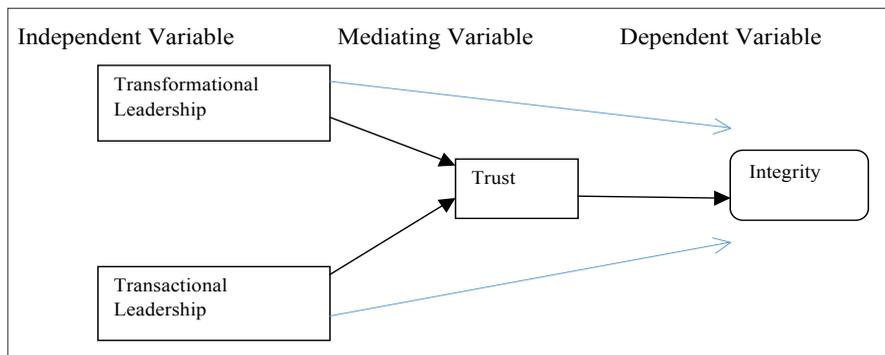


Figure 1. Conceptual Framework

Based on the above literature also, it can be hypothesised that:

- H1: Transformational leadership has a significant relationship with integrity
- H2: Transactional leadership has a significant relationship with integrity
- H3: Trust mediates the relationship between transformational leadership and integrity
- H4: Trust mediates the relationship between transactional leadership and integrity

METHODOLOGY

A cross-sectional study, which is based on data collection at a single point of time, was employed to analyse the relationships between transformational leadership,

transactional leadership, trust and integrity. The main benefits of cross-sectional study are for incorporating the leadership and governance literature, in-depth interview, pilot study and real survey in grouping correct and meaningful data (Cresswell, 1998; Sekaran & Bougie, 2010). The aimed population for this study was around 25,000 support staff employees in Malaysian local authority organisations. The estimated sample size for this study is 377 employees. Stratified random sampling was used to collect data.

In-depth interviews were carried out in the surveyed organisations to collect the appropriate qualitative data based on elements such as relatively clear and well-explained research goals, available time,

researcher's knowledge, and the expected level of respondents' involvement (Maykut & Morehouse, 1994). Information from in-depth interview was referred to prepare self-report questionnaires for a pilot study. The pilot study is required because it will determine whether the items of the instruments are easily understood by the respondents, avoid vague questions and omit questionnaire items that are not suitable for the study (Cooper & Schindler, 2006). This can support the researchers in providing true and reliable data based on improved questionnaires' content and format. The final self-report questionnaire was designed based on the feedback of the pilot study. Meanwhile, the actual survey was implemented by distributing the questionnaires to the respondents to collect necessary information (Easterby-Smith et al., 1991). Further, survey through questionnaires can be a suitable method to get data from big sample size (Sekaran & Bougie, 2010). In the duration of collecting actual research data, interviews and distribution of questionnaires were done concurrently with the respondents. Statistical Package for Social Science (SPSS) programme version 20.0 and Structural Equation Modelling technique through Analysis of Moment Structure (AMOS) version 20.0 were used for data analyses. Analysis of regression was the ultimate investigation to assess the cause and effect relationship between the research constructs and the role of mediating variable in the model as well (Zainudin, 2012).

RESULTS

Table 1 presents the respondents' profile of this study. The respondents were mostly males (52 percent), with the majority aged between 25 to 33 years old (51.3 percent), and most of them are SPM holders (54.3 percent) and have working experienced of around 6 - 10 years (33.7 percent).

Results of validity and reliability tests for measurement scales are illustrated in Table 2. The items of each variable (20 items – transformational leadership, 12 items – transactional leadership, 12 items - trust and 6 items – integrity) were proceeded with exploratory factor analysis (EFA) based on varimax with Kaiser Normalisation rotation. Measuring the sampling adequacy of factor analysis using the Kaiser-Mayer-Olkin Test (KMO) showed a good result for each variable, which was above the minimum standard of 0.60 of Kaiser-Meyer-Olkin's and significantly accepted ($p < 0.000$) in Bartlett's test of sphericity (BTS). The eigenvalues (EG) of each variable showed above 1, with variance explained (VE) values exceeding 0.60. Besides, factor loadings for each variable item indicated more than 0.50 (Hair, Anderson, Tatham, & Blacks, 2010), and the reliability (RA) of all the research variables was above 0.60 as the acceptable standard of reliability analysis (Sekaran & Bougie, 2010). Hence, the validity and reliability of those statistical results proved that the measurement scales selected for this study were accepted, as demonstrated in Table 2.

Table 1
Respondents' Profile (N=300)

DEMOGRAPHIC	CHARACTERISTICS	FREQUENCY	PERCENTAGE
Gender	Male	156	52.0
	Female	144	48.0
Age	Less than 25 years	29	9.7
	Between 25 and 35 years	154	51.3
	Between 36 and 45 years	62	20.7
	46 years and above	55	18.3
Highest Academic Qualification	Primary School Certificate	4	1.3
	SRP/PMR	6	2.0
	SPM	163	54.3
	STPM	25	8.3
	Diploma	71	23.7
	Others	31	10.3
	Management Services	125	41.7
Department Served	Finance	18	6.0
	Enforcement	114	38.0
	Technical	23	7.7
Length of Service	Others	20	6.7
	5 years and below	67	22.3
	6 - 10 years	101	33.7
	11 - 15 years	58	19.3
	16 - 20 years	28	9.3
	21 years and above	46	15.3

Note: SPM/MCE/Senior Cambridge: Sijil Pelajaran Malaysia/ Malaysia Certificate Education, STPM/HSC: Sijil Tinggi Pelajaran Malaysia/High School Certificate

Table 2
Validity and Reliability Analyses for Measurement Scales

Variable	Items	FL	KMO	BTS	EG	VE	RA
Transformational Leadership	20	0.72 to 0.86	0.97	5363.8	12.7	63.5	0.97
Transactional Leadership	12	0.75 to 0.90	0.83	2116.9	12.7	72.7	0.84
Integrity	6	0.76 to 0.87	0.84	718.3	3.3	65.6	0.62
Trust	12	0.68 to 0.84	0.91	1626.6	6.4	70.8	0.91

As stated above, this study used Structural Equation Modelling (SEM) method through AMOS 20 to analyse the relationship between the constructs in the model. This needs the goodness of model fit of the measurement model because it proves the appropriateness of the selected items of each construct (Hair et al., 2010). Therefore,

the confirmatory factor analysis (CFA) was performed to obtain acceptable model fit by identifying relevant items based on modification indices output table generated by AMOS (Zainudin, 2012).

Figure 2 shows that all the items of transformational leadership, transactional leadership, trust and integrity were unable to perform goodness of model fit because the indicators of comparative fit index (CFI) and Tucker-Lewis index (TLI) showed an unacceptable level of values (0.860 and 0.867, respectively) although the root mean square error of approximation (RMSEA) showed acceptable value at 0.067. Referring

to Hair et al. (2010), the accepted level of RMSEA must be less than 0.08, CFI and TLI is better at value more than 0.90. Hence, some items of transformational, transactional leadership, trust and integrity constructs were deleted (due to high value of errors found in Modification Indices of AMOS output) to ensure a good fitness of model as illustrated in re-specified overall measurement model (see Figure 3). This re-specified model shows the acceptable level of RMSEA, CFI and TLI values which are 0.048, 0.961 and 0.957, respectively. Meanwhile, parsimonious fit index (PNFI) achieved 0.814.

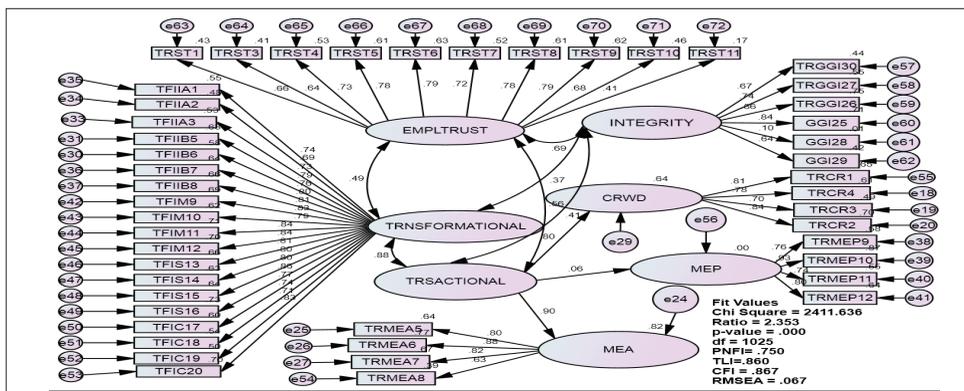


Figure 2. Overall Measurement Model

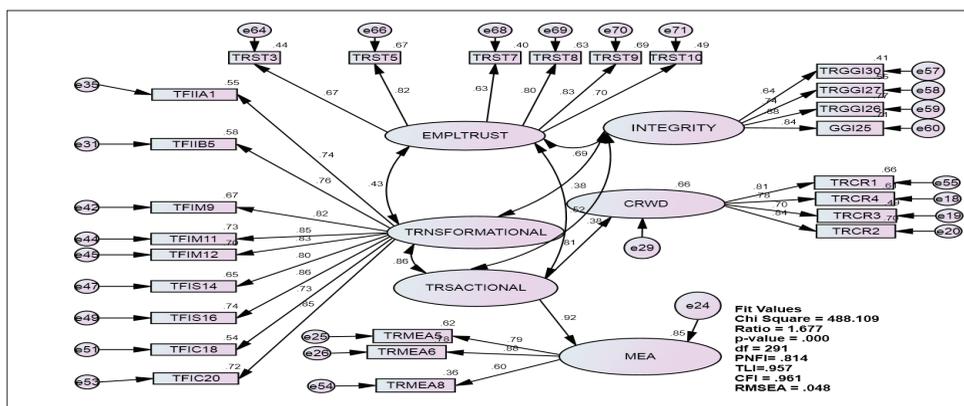


Figure 3. Re-specified Overall Measurement Model

Results of direct effect relationships, shown in the hypothesized structural model (Figure 4) based on the existing of trust in the model, rejected H1, H2 and H3 but supported H4. The status of those hypotheses was revealed by the insignificant effect of transformational leadership on subordinates' integrity ($\beta = 0.211$, t value = 1.552, $p > 0.05$) and insignificant effect of transactional leadership on employees' integrity ($\beta = -0.148$, t value = -0.960, $p > 0.05$). Transformational leadership also has no effect on trust ($\beta = -0.060$, t value = -0.339, $p > 0.05$). In contrast, transactional

leadership showed a significant impact on trust ($\beta = 0.567$, t value = 3.209, $p < 0.05$) and trust significantly influences subordinates' integrity ($\beta = 0.674$, t value = 7.895, $p < 0.05$) This could be interpreted that the effective implementation of transactional leadership approaches by the leaders via contingent reward and management by exception (active) have indirectly promoted integrity among the subordinates in LAs through their trust in organisation. Subordinates who trust their transactional based leaders, systems and peers of organisation are more motivated to be highly integrity.

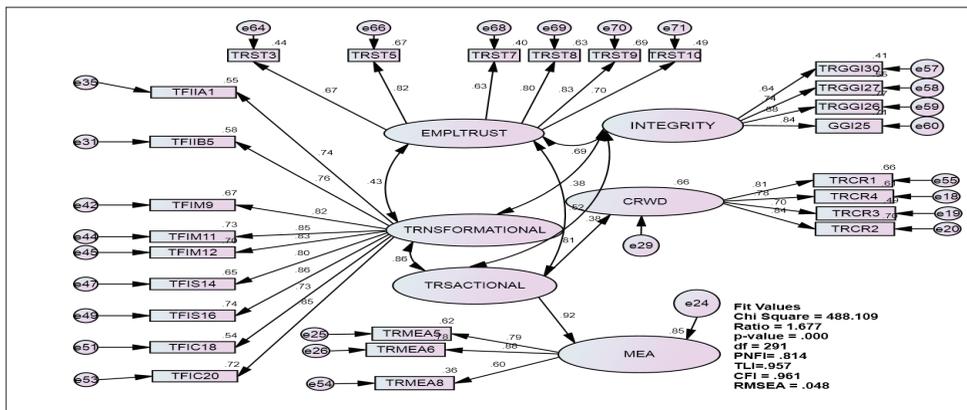


Figure 4. Hypothesised Structural Model

DISCUSSION AND IMPLICATIONS

This study discloses that the indirect influence of transactional leadership on integrity is affected by trust in an organisation. In LAs, leaders have clearly practiced transactional leadership facets such as contingent reward and management by exception (active) to completely succeed the organisational strategy in achieving the goals. Many employees perceive that

such leadership practices has provided them chances to put their efforts and be equipped with relevant resources to implement organisational functions. They also perceived that leaders were strict to influence them to achieve the target of their tasks compared to transformational leadership style as newly encouraged to be practiced in the public sector organisations now. Moreover, the implementation of

civil service transformation programme, as seriously emphasised in the agenda of Government Transformation Programme (GTP) Roadmap, does not fully affect the leaders in public sector organisations such as LAs to aggressively practice transformational leadership style. The old style of leadership that is biased to transactional style has been a strong culture that preferred to be practiced mostly by the senior and old leaders. Transactional leaders in LAs strongly utilised their authority and power by attracting followers' respect for their leaders to mutually achieve the targets. All these led the followers to trust their organisation. When followers have trust for their organisation, it could motivate them to have more integrity.

The findings of this study are also essential to identify the implications based on theoretical, methodology and practical aspects. Theoretical implication is explained by the mediating effect of trust on the relationship between transactional leadership and integrity. This finding is supported the study by Azman et al. (2010), and the famous integrated model of trust as generated by Mayer et al. (1995). Overall, the findings of this study have sustained and added to leadership and integrity research literature, which is mostly found in the publications of the Western and Eastern organisational settings. Thus, the notion of transactional leadership style and trust have been effectively practiced within the leadership management model of the investigated organisations. Conducting the robustness of research methodology,

the data collected using relevant research literature the in-depth interviews, pilot study and survey questionnaires have proven the high level of validity and reliability analyses, thereby giving the correct and valid results and findings.

For the practical implications, the results of this study can be regarded as a principle by the management to enhance the success of leadership style in their organizations. Hence, it is important for the management to learn some guidelines. First, leadership styles will be meaningful if the management always strives for contemporary knowledge, suitable skills and high ethics values. This training session can change leaders' actions in properly managing employees' rights and needs who come from different socio-economy status. Second, directive leadership as synonym to transactional style is more benefited if the programmes introduced in LAs (i.e., Total Quality Management, Client Charter and Leadership by Example) are practiced together by both leaders and their subordinates. This will motivate the subordinates when they feel that their leaders are always with them in implementing the programmes for goals achievement. Subsequently, it may encourage them to display their strong efforts in doing the job. This shows that the subordinates have intentions that lead them to behave based on their integrity for the organisational success. Their intentions represent their trust mainly to the leaders who apply the behaviours of transactional leadership. Further, other than trust, formal and informal relationships between subordinates and leaders will

also contribute to other acceptable subsequent individual outcomes (e.g., satisfaction, commitment, engagement) that lead to subordinates' integrity. If employers are aware these implications, it may spiritually encourage followers and leaders to realise organisational strategies and goals. Therefore, future research should consider potential intervening factors such as job satisfaction, organisational commitment and employees' engagement in examining the influence of leadership styles on subordinates' integrity. Moreover, the studied organisation should include other public sector agencies for a better generalisation of the findings.

CONCLUSION

This study reveals that transactional leadership has a significant indirect relationship with subordinates' integrity in LAs through the influence of subordinates' trust as mediator. This result supports the previous studies and contributes to research literature in the area of leadership, mainly in the context of Western and Eastern organisational based research. Thus, the present research and practices on the public sector organisations in Malaysia have to consider that transactional leadership is an important element of the organisational leadership style to foster subordinates' trust on their organization. This will help to increase subordinates' integrity and protect themselves from misconduct behaviours, especially corruption. Consequently, this

will support the LAs to be more effective and efficient in delivering their services to the public and more importantly, make them to be more trusted by the public in the future.

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Shareholder Retention Influence on the Flipping Activity of Malaysian IPOs

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ABSTRACT

The high initial trading volume following an IPO listing is an anomaly in the aftermarket and this activity is mainly caused by the flipping activity of flippers. Therefore, this study argues that investors' interest could be one of the factors that trigger flipping activity. This study uses the signalling theory argument, whereby the proportion of shareholder retention sends a credible signal to investors and sways flipping activity. Using cross section and quantile regression in high and median quintiles, this study found a significant positive relationship between shareholder retention and flipping activity. The finding suggests that to increase the liquidity of the IPOs in the immediate aftermarket, the shareholders have to retain a higher proportion of shares in order to signal the quality and prospects of the IPOs.

Keywords: Flipping activity; IPOs; liquidity; quantile; retention; shareholder; signal; underprice

INTRODUCTION

The pattern of trading volume immediately following an IPO listing is consistently indicating an unusual behaviour. The abnormal trading activity in the IPO initial market has been so persistent both over different periods and settings that it has been accepted as another IPO anomaly. One of common reasons driving the abnormally high trading volume in the immediate aftermarket of IPOs is the investors' demand. Of particular concern is

the flippers who seem to be the main market player in matching the demand. Flipper is the term referring to the shareholders who have just been allocated with the new IPO shares. The liquidation of their IPOs in the first or first few days after listing is specifically known as flipping activity

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(Islam & Munira, 2004; Ellis, 2006; Che Yahya, Abdul-Rahim, & Yong, 2013). In other words, flipping activity is referring to the act of selling the shares which are just being subscribed by investors in the IPO immediate aftermarket. One of the reasons these flippers liquidate their newly acquired shares is to take advantage of abnormal initial returns in early aftermarket.

Previous studies that examined the anomalous of IPO under-pricing (e.g., Habib & Ljungqvist, 2001; Hiau-Abdullah & Mohd-Taufil, 2004; Abdul-Rahim & Yong, 2010; Lowry, Officer, & Schwert, 2010; Mohd Rashid, Abdul-Rahim, Hadori, & Habibi Tanha, 2013; Mohd Rashid, Abdul-Rahim, Yong, & Nor, 2013; Mohd Rashid, Abdul-Rahim, & Yong, 2014) explained that the phenomenon of underpricing is due to rational investors who are profit driven in that they rationally sell the shares when the market is offering a higher price than the offer price to gain a quick profit from the market. The sharp increase in price in the early aftermarket, which creates an opportunity for the investors to make a huge profit, will be more likely to cause the flipping activity to become high. This study acknowledges the argument that has been put forward and accordingly examines the factors that influence investors to flip their shares. In brief, the first motivation to carry out this study is that, while a few past studies (Islam & Munira, 2004; Ellis, 2006; Abdul-Rahim, Sopian, Yong, & Auzairy, 2013; Che Yahya et al., 2013) look at the behaviour of the high trading volumes in the immediate aftermarket, none of them empirically

examined the influence of insider ownership on the flipping activity. This study uses the argument by Leland and Pyle (1977) whereby insiders proportion does play an important role in signalling the firm's quality, which accordingly will trigger investors' demand and influence the immediate aftermarket trading volume substantially. In the context of this study, the role of insiders' ownership on flipping activity will be examined based on shareholder retention which reflects insiders' belief in their companies based on the proportion of shares that they willingly continue to hold despite the exit opportunity that comes with IPO.

Additionally, this study argues that the flipping activity could be detrimental to the performance of IPOs if the demand from the market is not sufficient enough to sustain the price. Therefore, this study contends that examining the factors (specifically insiders' characteristics) that influence flipping activity should be given adequate attention as the results could assist issuers and investors in making investment decisions. This study focuses on the signalling theory (Leland & Pyle, 1977) to propose that shareholder retention shall provide a credible signal to the investors. As investors' belief on the positive signal translates into a higher price at listing, a window of opportunity to make a quick profit is opened. Rational investors will tend to sell the shares, therefore creating a scenario that is conducive for flipping activity. However, no studies have been conducted to prove the relationship, other than that by Li, Zheng and Melancon (2005) which examined the influence of

shareholder retention on liquidity. Their study is still different from the one that this study is about to embark in that they focus on liquidity which is measured based on the trading volume over the first twenty days after the IPO listing. Meanwhile, the present study examines the flipping activity during the initial trading of the IPO, which is on the first day, and for the robustness test, the present study will also consider the flipping activity on the first three days as well one week after the IPO listing.

Finally, the third motivation for this study is the need for a separate study for the Malaysian IPO market because this market has unique features that may not allow investors to adopt strategies based on the findings from other markets, particularly from developed markets. Applicants for the new issues are required to assume the fixed price determined by the issuing firm and underwriters, of course finally in the discretion of the Securities Commission of Malaysia (the security market regulators). Thus, the specific regulations and listing requirements in Malaysia could influence the relationship between shareholder retention and flipping activity.

The remaining of the paper is organised in the following manner. The next section reviews the literature relevant to the study. This is followed by another section describing the data and methodology, a section on the findings, and finally, the last section provides the conclusion and implications of the study.

LITERATURE REVIEW

Research on flipping activity has mainly been conducted in the developed market (e.g., Krigman, Shaw, & Womack, 1999; Aggarwal, 2003), whereby the main focus is given to underwriter's role. Krigman et al. (1999) and Bash (2001) examined the role of flipping activity as one of the determinant factors of long-term performance. Meanwhile, Aggarwal's (2003) findings showed that institutional investors flip their shares that are considered hot IPOs. A recent study by Che-Yahya, Abdul-Rahim, and Yong (2014) examined flipping behaviour in a sample of fixed price IPOs and found that investors tend to flip IPOs that are overpriced.

In Malaysia, the study on flipping activity is still at the preliminary stage and also limited (Chong, Ali, & Ahmad, 2009; Abdul-Rahim et al., 2013; Che Yahya et al., 2013; Che-Yahya et al., 2014). For Malaysian IPOs, the determinants of flipping activity include the IPO initial returns (Abdul-Rahim et al., 2013), representative heuristic (Chong et al., 2009), institutional investors (Che-Yahya et al., 2014) and lock-up provision (Che Yahya et al., 2013). However, none of these earliest studies have focused on the influence of shareholder retention on flipping activity. The list of studies that have examined shareholder retention generally includes those by Jain and Kini (1994), Habib and Ljungqvist (2001), Bradley and Jordan (2002), Zheng and Stangeland (2007). Within the scope of

our review on the relevant literature, none of these studies exclusively examined the direct relationship between shareholder retention and flipping activity. The only study that bears a certain degree of similarity with the present one is that by Li, Xiaofan Zheng, and Melancon (2005) that examined shareholder retention with IPO liquidity in the initial IPO market (i.e., trading volume over twenty days after the IPO listing). Therefore, this study extends the work by Li et al. (2005) by examining the influence of shareholder retention on flipping activity (specifically trading volume during the first or first few days after listing) to provide another piece of important information concerning the IPO literature.

The present study uses signalling theory as a basis for arguing that there should be a significant relationship between shareholder retention and flipping activity. This is based on the argument that pre-IPO shareholders, as insiders and shareholders who must have been more informed about their companies relative to the other IPO market players, would retain a larger portion of their shares in the company if and only if they believe that the company has a good future prospect or quality. Subsequently, the shareholders' retention rate should transmit a positive signal to the market. The signal is a good future prospect that normally will commensurate a higher price on the first day of listing relative to the offer price and, therefore, a flipping activity is expected as rational investors would not miss the chance to reap the higher return. Alternatively, this high quality signal can also translate into

lower risk investment such that the risk-return trade-off theory will quickly predict a lower return for the lower risk IPO, and as such, lower flipping activity can be expected as investors perceive the IPOs as good long-term investment potential. In short, the finding of the present study contributes to the literature on IPO flipping behaviour as a compliment to other studies concerning shareholder retention (Habib & Ljungqvist, 2001; Li et al., 2005; Zheng, Ogden, & Jen, 2005).

The present study also acknowledges other variables that are found to be significant in explaining the flipping activity and some of the variables have also been found to influence the IPO performance which indirectly will influence the flipping activity. In more specific, in examining the relationship between shareholder retention rate and flipping activity, the present study controls a few variables which include excess equity capital, initial return, market condition, oversubscription ratio, risk, institutional investors' involvement, underwriter reputation and market capitalisation.

DATA AND METHODOLOGY

This study uses a sample of IPOs listed on Bursa Malaysia in the period between January 2000 and December 2012. The study period starts in 2000 to avoid the adverse effect of the 1997/98 Asian financial crisis. The sample is confined to IPOs that are offered using the fixed price mechanism. The final sample also excludes extreme outliers, REITS, financial firms due to

different reporting of the financial statement as well as firms with limited information. Data are sourced from the prospectus, DataStream and Bloomberg.

This study uses cross-sectional regression and quantile regression, as proposed by Koenker and Bassett Jr (1978), to examine the influence of shareholder retention on flipping activity. This study utilises 20th quantile, 50th quantile and 75th quantile to compare the influence of shareholder retention on flipping activity at different levels of flipping activity. This study uses a bootstrap method to estimate the standard error since the data are conditioned to heteroscedasticity. The cross section regression and quantile regression models are written below:

$$\begin{aligned}
 FLIP_i = & a + \beta_1 SHRTN_i + \beta_2 EEC_i \\
 & + \beta_3 IROPEN_i + \beta_4 RISK_i + \beta_5 CAPZ_i + \\
 & \beta_6 OSR_i + \beta_7 PRIVATE_i + \beta_8 UND_i + \\
 & \beta_9 MKTCON_i + \varepsilon_i
 \end{aligned} \quad (1)$$

Where, the dependent variable is flipping activity (*FLIP*), calculated as the ratio of trading volume on the first day (and alternatively first three days and then one week) over the number of shares distributed. *SHRTN* is shareholder retention, which is the portion of shares the pre-IPO shareholders continue to hold after the IPOs. This study also controls seven variables: *EEC* is excess equity capacity using ratio of paid-up capital to authorized capital, *IROPEN* is the percentage of the difference between IPO offer price and its opening price on the first day of listing, *RISK* is the reciprocal

of the IPO offer price, *CAPZ* is the natural log of the market capitalization, *OSR* is the oversubscription ratio, and *DPRIVATE* is the dummy variable which is equal to 1 for IPOs issued partially or totally to institutional (and few high-worth) investors and 0 otherwise. *UND* is the underwriter reputation, which is based on the rank of the underwriters determined according to the total amount of underwriting over the total underwriting amount for a particular year, and *MKTCON* is the market condition during listing, measured using the difference between EMAS price index during the listing and offer dates.

FINDINGS AND DISCUSSION

Figure 1 illustrates the relationship between shareholder retention and flipping activity at three levels or categories of retention rate (i.e. 40-60 percent, 60-80 percent and 80-100 percent). The patterns in Figure 1 suggest that there is a positive relationship between shareholder retention and flipping activity. This implies that an increase in the proportion of shareholder retention increases the investors' tendency to engage in a flipping activity. The next results (Table 1) are on the descriptive statistics, based on the three levels of shareholder retention. The findings seem to suggest that flipping activity increases monotonically with level of shareholder retention. Table 1 also shows that firms that are larger (normally those perceived to have established operating records) tend to have a higher shareholder retention.

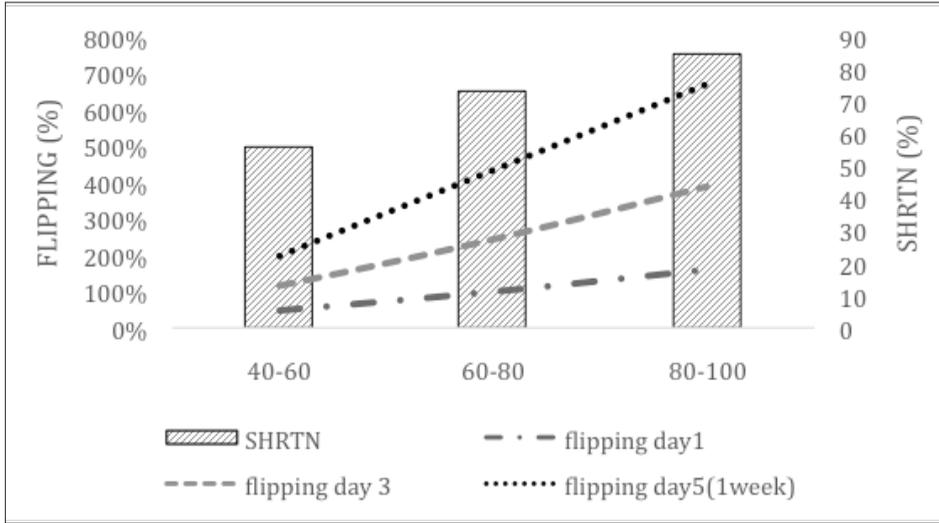


Figure 1. Shareholder retention, flipping activity on first trading day, third day and one-week using IPOs issued from January 2000 to December 2012.

The preliminary findings in Table 1 imply a condition that is consistent with the hypothesis forwarded in this study regarding the signal conveyed through shareholders' retention. Note that high

shareholders' retention is associated with large companies, implying that these IPOs are perceived as a low risk investment. This deduction is consistently supported with the lower returns for IPOs under this

Table 1
Descriptive statistics of the variables from January 2000 to December 2012

Shareholder Retention (%)	40-60% (N=93)	60-80% (N=157)	80-100% (N=84)	Whole sample (N=368)
SHRTN (%)	55.65	72.94	84.34	72.73
FLIP 1 (%)	47.61	99.51	159.83	106.18
FLIP3 (%)	68.10	145.14	228.46	153.65
FLIP5 (%)	81.71	187.65	281.61	194.76
EEC (%)	43.14	45.14	42.49	44.29
PRIVATE (%)	43.56	43.61	43.97	40.18
OFFER PRICE (RM)	0.98	0.94	1.10	1.15
IRCLOSE (%)	35.18	28.04	24.94	23.80
IROPEN (%)	33.39	31.58	23.06	22.90
OSR (Ratio)	32.99	36.12	22.19	22.62
RISK	1.71	1.71	1.72	1.41
MKT COND (%)	0.93	0.98	-0.11	-0.55
CAPZ (RM BILLION)	516.53	228.99	720.09	932.75
UNDS	7.04	8.93	7.32	8.33

category. However, what is surprising is the fact that these IPOs recorded more than 100 percent trading activity, indicating trading executed not only by flippers but existing shareholders. This contradicting results call for further investigation on the relationship between shareholder retention and flipping activity.

Note again that there is a large difference in the levels of flipping activities among different levels of shareholder retention. This calls for a further examination on the

influence of shareholder retention on flipping activity since there is no empirical evidence has been established so far. Table 2 presents the cross-section regression analysis that enumerates factors that influence the flipping activity. The regression results in Table 2 have remedied the autocorrelation problem using Newey-West procedure, while the heteroscedasticity problem in assuring that the residuals do have a constant variance is corrected using the White consistent standard errors and covariance. The overall

Table 2
OLS regression of the Shareholder Retention on the Flipping Activity

Independent Variables	FLIP1	FLIP3	FLIP5
SHRTN	2.552*** (3.239)	0.037*** (3.209)	0.046*** (3.355)
EEC	-0.276 (-0.619)	-0.005 (-0.813)	-0.006 (-0.734)
IROPEN	0.823** (2.231)	0.011** (2.300)	0.015** (2.109)
MKTCON	-2.471* (-1.670)	-0.030* (-1.820)	-0.032* (-1.786)
OSR	-0.184 (-0.898)	-0.002 (-0.796)	-0.002 (-0.667)
RISK	-21.809*** (-2.629)	-0.294*** (-2.480)	-0.398*** (-2.532)
PRIVATE	-0.204 (-0.679)	-0.001 (-0.327)	0.001 (0.250)
UND	3.410 (0.201)	0.054 (0.233)	-0.010 (-0.036)
CAPZ	-29.967*** (-4.450)	-0.432*** (-4.501)	-0.540*** (-4.484)
C	518.21*** (3.938)	7.348*** (3.916)	9.110*** (3.764)
Adjusted R-squared	0.111	0.105	0.097
F-statistic	6.104***	5.793***	5.416***
Durbin-Watson stat	1.999	2.008	2.015

model also has passed the RAMSEY misspecification test. The adjusted R2 for three models of dependent variables (i.e., flipping day 1, flipping day 3 and flipping one week) indicates that all the determinants explain 9 to 11 percent of the variations in the flipping activity. The significance of F-statistics confirms satisfactory goodness-of-fit of the models.

The regression results show that shareholder retention is positively significant in influencing flipping activity. The finding supports the signaling theory of Leland and Pyle (1977), whereby insiders do play an important role in signalling the quality of the firms. Investors believe that insiders only hold a large portion of the firm's shares if they believe in the firms' prospect and generally the shares potentially will have higher demand from investors due to higher initial return than expected. This argument further supports Brau, Lambson, and McQueen (2005), where investors who are profit-driven will normally tend to reap the abnormal return during the listing day and this behaviour will tend to increase the flipping activity due to the temptation of investors who would be allured to the higher return in the immediate aftermarket.

With regard to the control variables, excess equity capacity (*EEC*) has a negative relationship with flipping activity, yet it is not significant. The negative relationship suggests that excess equity will reduce the pressure on IPO price and lower the flipping activity by investors. Of factors that have a positive relationship with flipping, the list includes the initial return (*IROPEN*)

and underwriter reputation (*UND*). The significant positive sign of initial return suggests that investors who are profit driven will be more likely to flip their shares immediately after the IPO listing to make a quick profit from the price increase. The positive effect of underwriter reputation on flipping activity is somewhat perplexing, nonetheless it is insignificant. The result supports the prediction where firms that are established normally big firms believe to have quality and issuers tend to recruit quality underwriters in hopes of reaping the profit immediately after the IPOs listing, and it will accordingly influence the flipping activity by investors to increase.

While the other control variables such as market condition (*MKTCON*), risk (*RISK*) and market capitalisation (*CAPZ*) are negatively significant in explaining the flipping activity. The negative impact of market condition suggests that investors will hold on to their shares when the market condition is good with the hope that the price of the shares will further appreciate in the longer term. A significant negative relationship between risk and flipping activity suggests that IPOs of firms with high-risk investment could have been underpriced that the IPOs attract mass participants. Investors would hold on to the IPOs in the hope of higher compensation from the risky investments. Meanwhile, the negative significant effect of market capitalisation suggests that a bigger IPO offering will reduce flipping activity due to the large supply. Additionally, firms of bigger size are normally established firms

in terms of their operating history and they are also more transparent. Thus, due to the quality of the firms, investors may prefer holding the IPOs in the hope the market value of shares will increase further in the future. The coefficients of investors' demand (*OSR*) and institutional investors' involvement (*PRIVATE*) are also negative but they are insignificant. The finding suggests flipping activity tends to reduce when investors' demand on a particular IPO is higher. Investors seem to be more reluctant to let go off shares that are

highly demanded by other investors. Finally, institutional investors are informationally opaque that their participation in the IPOs signal a certain degree to quality such that investors are willing to hold these shares for a longer period in hope they will get some portion of the good quality pie.

The next analysis uses the quantile regression methodology in estimating the effect of shareholder retention at different levels of flipping activity. Focusing on the impact of the main variable, i.e., shareholder retention, the results show that the coefficient

Table 3
Quantile Regressions of the Shareholder Retention on the Flipping Activity

Independent Variables	FLIP1		
	25 th Quantile	50 th Quantile	75 th Quantile
SHRTN	0.176 (0.507)	1.275*** (3.079)	2.5333*** (3.692)
EEC	0.004 (0.032)	-0.065 (-0.244)	-0.300 (-0.889)
IROPEN	0.062 (0.495)	0.241 (1.356)	0.046 (0.239)
MKTCON	0.120 (0.396)	-0.130 (-0.254)	-0.046 (-0.061)
OSR	0.101 (0.961)	-0.035 (-0.176)	0.121 (0.371)
RISK	-4.231 (-1.271)	-2.552 (-0.542)	-11.887** (-1.963)
PRIVATE	-0.013 (-0.114)	-0.002 (-0.011)	0.273 (0.978)
UND	-5.078 (-1.722)	7.940 (0.806)	3.606 (0.296)
CAPZ	-5.078* (-1.722)	-11.456*** (-2.930)	-20.641*** (-4.483)
C	108.152** (2.0553)	181.976** (2.030)	337.221*** (2.829)
Pseudo R-squared	0.0229	0.058	0.079
Observations	368	368	368

Notes. ***, **, * indicate significance at 1%, 5% and 10%, respectively.

of *SHRTN* is positively significant in the 50th and 75th quantiles. This implies that the effect of shareholder retention is stronger when the flipping activity is higher. The finding is consistent with the Leland and Pyle's (1977) argument that insiders' ownership signals the quality of the IPOs.

CONCLUSION

This paper analyses the role of shareholder retention in influencing flipping activities of Malaysian IPOs. Using data from IPOs issued between 2000 and 2012, the findings suggest that the higher shareholder retention signals the quality of the IPOs, and this positive information may influence the price to further increase the tendency of rational investors to sell the IPOs in the immediate aftermarket to take advantage of the abnormally positive return during that period. In general, the findings of this study suggest that if investors are concerned with high quality investments, then the IPOs may record high flipping activities. Also, there might be certain possibilities that the value of shareholders depreciates if the selling pressure is overwhelming due to investors' decision to participate in the market to reap abnormal return during the IPO listing. Therefore, the finding of this study could be used by investors to avoid from being trapped in the value-deteriorating investments that are caused by the excessive flipping activity. The present study hopefully triggers more interests on the issue of insiders' role in predicting flipping activity. Future studies

may consider the effects of IPO market condition by segregating the study period into several sub-samples to examine the shareholder retention effect during the cold and hot market condition. In addition, other consideration such as the difference between penny and non-penny stocks on the impact of flipping activity would be a new paradigm in the IPO literature.

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Impact of Perceived Company's Innovativeness, Service Quality and Customer Satisfaction on Repurchase of Life Insurance

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ABSTRACT

The study attempts to increase the knowledge of how customers' perception of a company's innovativeness and service quality has influenced their repurchase of life insurance. This research aims to investigate, develop and validate a causal relationship model of life insurance repurchase by means of structural equation modelling (SEM) analysis. The sample group of 400 people who had bought insurance policies from companies in Thailand was approached to answer a structured questionnaire. Results revealed that repurchase of life insurance was directly affected by customers' perceived company's innovativeness and customer satisfaction, and indirectly affected by service quality of insurance agents. From previous studies related to correlation between service quality elements and repurchase, the correlation between corporate image and repurchase was well clarified, the interrelationship among the factors related to insurance company's innovativeness was not well illustrated. Thus, this research has developed a generic model of life insurance repurchase by means of structural equation modelling, which has value for its originality.

Keywords: Perceived company innovativeness, life insurance purchase, service quality, satisfaction

INTRODUCTION

For life insurance business, an increase in sales revenue may come from two possibilities, either from sales and promotions to the new target markets, or from the repurchase of existing customers. As for the latter option, a key factor that influences life insurance repurchase is brand loyalty (Bernett & Palmer, 1984, as cited in Zietz, 2003), which results from customers' satisfaction and effective customer relationship management.

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Murrawat and Nasershariati (2011) obtained a conclusion from their study that in life insurance business, 1% of loyal customers might increase 30% of profits. Several studies conducted on purchasing behaviour of life insurance in Thailand found that a customer who was satisfied with insurance agent's service quality and consistent relationship management would likely make a repeat purchase from the same sales agent.

Although the focus to encourage repeat purchase among existing customers is very important, there are very limited studies conducted to study factors that influence life insurance repeat purchase, while available studies did not sufficiently integrate involved perspectives into account. For instance, Zietz (2003) reviewed some factors that impact on life insurance purchase and discovered a conclusion from the past research such as demographic factors, psychographic factors, as well as trust and customer loyalty in relation to life insurance purchase. In details, it was found that life insurance purchase was related to gender, age, marital status, life cycle of marriage, family life cycle and number of dependents, career, income, personality and lifestyle (Duker, 1969; Berekson, 1972; Anderson & Nevie, 1975; Ferber & Lee, 1980; Miller, 1985; Showers & Shotick, 1994; Chen, Wong, & Lee, 2001, as cited in Zeit, 2003). The conclusion mainly focused on customers' individual characteristics.

As for the repurchase of existing insurance customers, the study by Taylor (2001) found that perceived service quality

had an impact on repurchase intention. Similarly, the study by Gera (2011) in India found that service quality resulted in insurance repurchase. The study by Tsoukatos and Rand (2006) found that in Greece, service quality was related to insurance customer loyalty. The study by Rao (2008) revealed that life insurance company's product innovations had an impact on Indian customers' repurchase decisions. The study by Iptimehin (2011) in Nigeria indicated that innovation is the factor that creates competitive advantage for life insurance business. The study by Yu (2013) obtained a summary from structural equation modelling analysis that in Taiwan, service quality, effective relationship management and customer satisfaction had influence on customers' loyalty. Thus, it can be concluded that customer's insurance repurchase resulted from service quality, company's innovation, customer relationship management and customers' satisfaction.

The literature review mentioned above indicated that there is no study that has brought in three major factors, namely, perceived company's innovativeness, the service quality of insurance agents and customers' satisfaction to jointly explain customer's repurchase behaviour. This, as a result, became the lead question leading to this study.

RESEARCH OBJECTIVE

The objective of this study is to develop and validate the causal relationship model

on the influence of perceived company's innovativeness, insurance agents' service quality and customer satisfaction on repurchase of life insurance.

LITERATURE REVIEW

Smith (2010, p. 25) classifies innovation into three types according to their application objectives: product innovation, service innovation and process innovation. Consumers obtained direct benefits from product and service innovation, whereas process innovation boosted efficiency in production and service delivery, which are beneficial for manufacturers or service providers.

The study by Gadrey et al. (1995) classified innovation of business consultancy service into product innovation, process innovation, organisational innovation and marketing innovation. The study also classified innovation of life insurance business into: 1) service, product innovation which focused on life insurance products or conditions of insurance policies, 2) architectural innovation such as the addition or separation of conditions into or out of existing insurance policies, and 3) process innovation.

Johne and Davies (2000) studied innovations within the medium-sized life insurance companies and obtained a conclusion that innovations in medium-sized life insurance companies could be classified as product innovation, service innovation and process innovation. Those highly successful companies normally gave

the first priority to marketing innovation, followed by product innovation and process innovation, respectively.

For organisations, "innovativeness" can be defined as the abilities to develop or invent something new (Hult et al., 2004). Company's innovativeness can be measured by various factors such as sales share of research and development expenditures, number of patents in relation to sales, sales share of improved or new products, economic assessment of innovations, etc. (Hollenstein, 1996).

Regarding the correlation between company's innovation and customers' satisfaction, Stock (2011) cited several studies that mentioned the correlation between company's innovation and customers' satisfaction (Langerak et al., 2004; Luo & Bhattacharya, 2006; Tatikonda & Montoya-Weiss, 2011), influence of company's innovation on customers' loyalty (Wallenburg, 2009), service innovation's influence on customers' satisfaction (Atuahene-Gima, 1996; Lievens & Moenaert, 2000) or the effect of product innovation on customers' satisfaction (Fidler & Johnson, 1984; Jedidi & Zhang, 2002) and drew a conclusion from empirical data that customers' satisfaction increased but not in proportion with company's innovativeness.

As for service quality, Gronroos (1990, as cited in Li, 2011) defined service as an activity between customers and product, actions and system of service providers to solve customers' problems, whereas Payne (1993; as cited in Li, 2011) defined service

as an intangible economic activity that provides solutions to customers but does not result in ownership.

Taylor (2001) defined quality as “a measure of service operation excellence” or a comparison of obtained service with excellent standards, whereas Parasuraman, Zeitheml, and Berry (1985) developed a service quality model called “SERVQUAL” with the following measurement perspectives:

1. Tangibles of service mean physical facilities which are equipped with modern, well-functioning equipment, suitable for servicing customers.
2. Reliability means service staff is capable of delivering results, as promised to customers. This made customers feel that the company is reliable. Service is delivered with accuracy and consistency and properly delivered from the first time. The service is delivered as promised and has no record of mistake.
3. Responsiveness means service staff is ready and willing to provide the service to customers, and respond to the needs of customers correctly. For example, service staff informs the customer of service delivery time, service staff promptly provides the service to customers, service staff is willing to help and respond to customer’s requests.
4. Assurance means service provider is equipped with knowledge, skills,

capability, honesty and friendliness in delivering service to customers. Assurance consists of three major components: 1) personnel capability which means staff’s knowledge and skills to deliver the service; 2) staff’s good manners, friendliness and attention in taking care of customers and their possession; 3) customer’s safety at the point of service.

5. Empathy means attention to take care of an individual customer, understand customers’ problems and needs. Moreover, service staff should focus on providing customized service and solutions to individual customers who come with different objectives, with clear and thorough communications.

Gronroos (1984; 1993; as cited in Caceres & Paparoidamis, 2007) defined quality as customers’ experiences based on two dimensions: technical dimension and functional dimension. Technical dimension is the result of the service while functional dimension is the way a service is delivered such as manners, attention, promptness and professionalism. According to this definition, customers do not pay attention only to the results of service but also consider the service process to be important. Service quality means perceived service quality in comparison with customers’ expectation.

The studies by Siddiqui and Sherma (2010) and Sherma and Bansal (2011) measured service quality of life insurance

companies in six dimensions: assurance, personalised financial planning, competence, corporate image, tangibles and technology.

Regarding repeat purchase, Saranyapong Thiangtam (2000, p. 231) mentioned two types of repeat purchase behaviours. The first one is customers' inertia, which means customers do not change to a new brand, not because of brand loyalty. The other is repeat purchase as a result of brand loyalty which is behavioural and psychological commitments.

Zeithaml et al. (1996) reviewed previous literature and found that superior service quality positively impacts the business. Examples of positive customers' behaviour are intention to repurchase and use the service again, recommending the service to family members, and willingness to pay higher price for that particular product or service.

Bloemer (1999) studied the influence of service quality on consumers' repurchase intention by conducting a survey among customers of four types of business: supermarket, healthcare service, fast food and entertainment. The findings of the study revealed that service quality had an influence on customers' repurchase, word of mouth and less attention on pricing. All of these elements could be called service loyalty.

Taylor (2001) obtained a conclusion from the regression model on insurance industry that service quality and customer satisfaction had an influence on insurance repurchase.

Tsoukatos and Rand (2006) studied service quality, customers' satisfaction and insurance customers' loyalty in Greece by conducting a path analysis and found that company's service quality, reliability, assurance, empathy and responsiveness had influence on customers' satisfaction compared to service tangibles which did not.

Meanwhile, Gera (2011) studied positive responses which resulted from life insurance's service quality in India by conducting a path analysis and a structural modelling and found that sales agent's service quality directly and indirectly affected future positive behaviour of customers such as repurchase and recommending to new customers. Yu (2013) studied results of relationship marketing towards life insurers in Taiwan and found that service quality was positively related to customer relationship management, customers' satisfaction and commitment.

RESEARCH HYPOTHESIS

From the previous literature review, the researchers developed a causal model and set following research hypothesis:

H₁ The causal relationship model conforms with the empirical data that perceived company's innovativeness, service quality of insurance agents and customer satisfaction have influence on life insurance repurchase.

RESEARCH METHODOLOGY

This study used a quantitative approach by conducting a survey among the sample

group. The population for this study included life insurance customers who had bought insurance policies from companies in Thailand. The size of the sample of 400 was determined by the formula of Taro Yamane at 95% confidence level and maximum 5% margins of error. The researcher used multi-stage sampling to pick seven provinces in Thailand and then used accidental sampling to screen qualified people to answer the questionnaire.

Research Tools

A questionnaire was used as a tool to collect the primary data for this study. The questionnaire had five parts, as follows:

1. Personal data of the sample group
2. Customer perception of company's innovativeness
3. Service quality
4. Customer satisfaction
5. Life insurance repurchase/repurchase intention

The first part of the questionnaire used nominal scale, whereas the second, third, fourth and fifth parts used interval scale by asking the people who answered the questionnaire to give the rating in five levels by means of the Likert scale.

Reliability and validity are the two concepts used for defining and measuring bias and distortion. Validity is measured by comparing against theories and by the review and approval of some marketing professors. Reliability is measured by calculating a confidence coefficient of

Cronbach's Alpha and obtained the result that questions used rating scale had a reliability alpha of not less than 0.700; this could be concluded that research tools of this study are good enough.

The statistics used for analysing data are as follows:

1. Descriptive statistics such as frequency and percentage used for presenting general characteristics of the sample group.
2. Analysis of structural equation modelling to check the causal model's compatibility with empirical data.

RESULTS OF DATA ANALYSIS

Sample Group

Majority of the sample (61%) were females. Around 23.5% of the respondents aged between 35 and 39 years old. More than half (55.5%) of them were married, while 47.5% obtained their Bachelor's degree. Meanwhile, 33.2% of the respondents were working for private companies. About 32% had a monthly income of less than Thai Baht 20,000 (645US\$).

Factor Analysis

Based on the relationship between observed variable and latent variable in the measurement model by using confirmatory factor analysis (CFA), it was found that:

Perceived company's innovativeness consisted of four observed variables: product

innovation, service innovation, process innovation and marketing innovation. After analysing the relationship between observed variable and latent variable in the model to measure perceived company's innovativeness, the researcher obtained Kaiser-Meyer-Olkin measure of sampling adequacy, with value of 0.818 or more than 0.50, Bartlett's test of approximately Chi-Square of 920.302, df. of 6, p-value of 0.000 or less than 0.05. These could be concluded that the observed variables were properly related for analysing data with the factor loading of 0.86, 0.84, 0.81 and 0.71, respectively.

The service quality of insurance agents comprised five observed variables: reliability, assurance, tangibles, empathy and responsiveness. After analysing the relationship between observed variable and latent variable in the model to measure service quality of insurance agents, the researcher obtained Kaiser-Meyer-Olkin measure of sampling adequacy value of 0.876 or more than 0.50, Bartlett's test of approximately Chi-Square of 1695.191, df. of 10, p-value of 0.000 or less than 0.50. These could be concluded that the observed variables were properly related for analysing data with the factor loading of 0.90, 0.89 0.83, 0.83 and 0.80, respectively.

Analysis of Causal Relationship Model

From the structural equation modelling analysis, the model was not a saturated with degree of freedom less than or equal zero. Then, the Model's index of consistency was compared with a set of criteria (Hooper et al., 2008). By using the maximum likelihood method in estimating the value of parameters, and using Chi-Square to test the conformity between structural equation modelling and empirical data, it was found that the structural equation modelling obtained Chi-Square = 42.461, df. = 34, p-value = 0.151, or more than 0.05. Consequently, it could be summarised that the structural equation modelling is in line with empirical data. After considering other supporting statistical values, the researcher obtained the values of CMIN/DF = 1.249, GFI = 0.981, AGFI = 0.963, CFI = 0.998, RMSEA = 0.025, PCLOSE = 0.976. Every statistical value yielded the same results as the Chi-Square test in Figure 1 and Table 1.

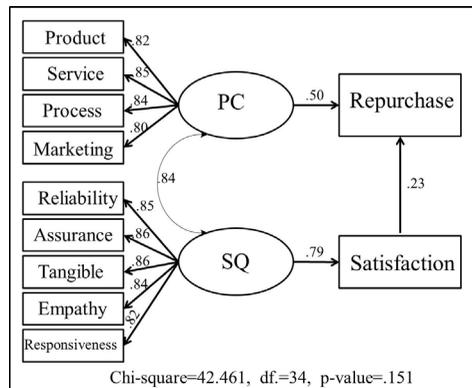


Figure 1. Outcome of the Causal Relationship Model Analysis

Symbols

PC means latent variable of perceived company’s innovativeness.

SQ means latent variable of insurance agents’ service quality.

Satisfaction means observed variable of customer satisfaction towards an insurance company.

Repurchase means observed variable of insurance repurchase intention.

Product means observed variable of product innovation.

Service means observed variable of service innovation.

Process means observed variable of process innovation.

Marketing means observed variable of marketing innovation.

Reliability means observed variable of reliability.

Assurance means observed variable of assurance.

Tangibles mean observed variables of tangibles.

Empathy means observed variable of empathy.

Responsiveness means observed variable of responsiveness.

Latent variables of perceived company’s innovativeness consist of four observed variables, ordered from the highest to the lowest weights, as follows: service innovation variable weighed 0.850, process innovation variable weighed 0.837, product innovation variable weighed 0.815 and marketing innovation weighed 0.798.

The latent variable of insurance agents’ service quality consisted of five observed variables, ordered from the highest to the lowest weights: assurance weighed 0.864, tangibles weighed 0.858, reliability weighed 0.853, empathy weighed 0.841 and responsiveness weighed 0.816.

The variable on customers’ satisfaction was found to have a direct impact from the variable on service quality of insurance agents and a significance level of 0.791. The variable on repurchase intention obtained a direct impact from the variable on perceived company’s innovativeness and customer satisfaction, with significance level of 0.496 and 0.233, respectively, and obtained an indirect impact from the variable on service quality of insurance agents, with significance level of 0.184, as shown in Table 2.

Conclusion and Suggestions

Intention to repurchase life insurance is influenced mostly by perceived company’s innovativeness, followed by service quality of insurance agents and customer satisfaction, respectively. Therefore, the researcher would recommend that an insurance company sets its corporate strategies and builds corporate image as

Table 1
Statistical values from structural equation modelling test

Statistic	Criteria	Statistical Value	Result
CMIN/DF	<2.00	1.249	passed
GFI	≥0.95	0.981	passed
AGFI	≥0.95	0.963	passed
CFI	≥0.95	0.998	passed
RMSEA	≤0.05	0.025	passed
PCLOSE	>0.05	0.976	passed

Table 2
Structural equation modelling to show direct and indirect impacts

Regression			Effect		
			Total	Direct	Indirect
Satisfaction	<---	Service Quality of Insurance Agents (SQ)	0.791	0.791	-
Repurchase	<---	Perceived Company's Innovativeness (PC)	0.496	0.496	-
Repurchase	<---	Satisfaction	0.233	0.233	-
Repurchase	<---	Service Quality of Insurance Agents (SQ)	0.184	-	0.184

having superior innovation compared to its competitors. An insurance company should focus on utilising information technology in promoting and delivering services to customers, defining new target markets in order to differentiate itself from competitors or adopting a marketing strategy that bolster its image as an innovation leader. These will not only increase its sales and service efficiency but also build an innovative business image, a key factor that influences customer purchase decision.

For future studies on this topic, the researcher would like to suggest that future study sets a quota for random sampling in order have a wide coverage of insurance customers from all geographic parts of Thailand and customers of all insurance companies in Thailand. In addition, future study should use qualitative research methods such as in-depth interview and focus group interview so as to deeply understand customers, as well as the factors that have influence on their life insurance repurchase. The information obtained will be useful for setting new variables for additional studies.

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Analysis of the Competitiveness of Indonesian Palm Oil and Cocoa Export Commodities: A Study on Malaysia and Singapore Export Markets

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ABSTRACT

This research aimed at analysing competitiveness of Indonesian palm oil and cocoa export commodities to Malaysia and Singapore markets. The two commodities were selected on the basis that they are Indonesian main export commodities, which contribute considerably towards the national income. Despite the significant contributions of the two commodities, the reality proves that Indonesia is still not able to optimise the potency and increase the competitiveness of those export commodities. *Revealed Comparative Advantage (RCA)* was employed as the competitiveness analysis method by using data in the period of 2009-2013. Results of the analysis revealed that Indonesian palm oil commodity has a strong competitiveness in Malaysia and Singapore export markets, as indicated by RCA index, which is greater than one ($RCA > 1$). Similarly, cocoa commodity also demonstrates a strong competitiveness since its RCA index value is greater than 1 ($RCA > 1$) in Malaysia and Singapore export markets. However, the upward trend of the price of palm oil and cocoa commodities in the international market is not accompanied by the rise in the export product value. As a result, Indonesia is still not able to gain benefits from this condition. Moreover, the change in the internal policy of export destination countries continues to restrict the import of palm oil and cocoa commodities and this has become a challenge for Indonesia in order to boost the competitiveness of both commodities in the future.

Keywords: Competitiveness, Export, Palm Oil, Cocoa
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INTRODUCTION

The export commodity of palm oil in the form of crude palm oil (CPO) has become one of the flagship export products

of Indonesia that can compete in the international market. In addition to being the main export commodity, palm oil is one of the fastest growing commodities compared to other plantation crops in terms of the planting areas and the volume of export of the commodity. Based on the data processed by GAPKI (Indonesian Palm Oil

Association), the export volume of CPO and its derivatives in December 2013 reached 2.02 million tons or increased by 0.5% compared with the previous month of 2.01 million tons. Meanwhile, if it is compared to the same period in 2012, it increased by 6.5% or 123.75 thousand tons from 1.89 million tons in December 2013.

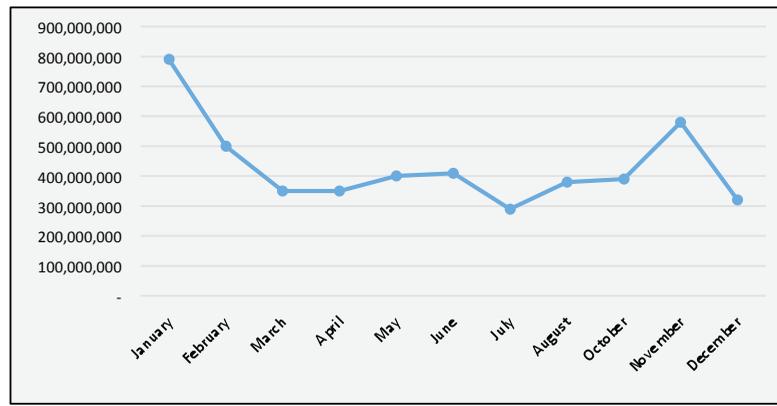


Figure 1. Values of Indonesian CPO Exports to the World, in 2013 (US \$)

Source: comtrade.org, processed, 2014

The most important CPO export destination countries are still occupied by India, the European Union and China. In December 2013, exports to India recorded an increase of 7.3% to 568.31 thousand tons compared with the previous month. A fairly significant increase in the exports was also recorded by the European Union for 14.2% from 349.52 thousand tons to 398.89 thousand tons in December 2013. In contrast, the exports to China fell by 5.9%, i.e. from 306.73 thousand tons to 288.67 thousand tons.

In addition, as the largest exporter of palm oil, Indonesia is also the third largest cocoa producer in the world after Ivory

Coast and Ghana. Data obtained from the United Nations Food and Agriculture Organisation (FAO) stated that Indonesia produced 574 thousand tons of cocoa in 2010. That number was approximately equal to 16 percent of the global cocoa production. However, that number was still lower when compared with the exports of Ivory Coast and Ghana. In 2010, the Ivory Coast produced approximately 1.6 million tons of cocoa. The high production figure of cocoa was by Ivory Coast as the major producer of cocoa in the world, with 44 percent of the global supply coming from this West African country alone.

The Competitiveness of Indonesian Export Commodities

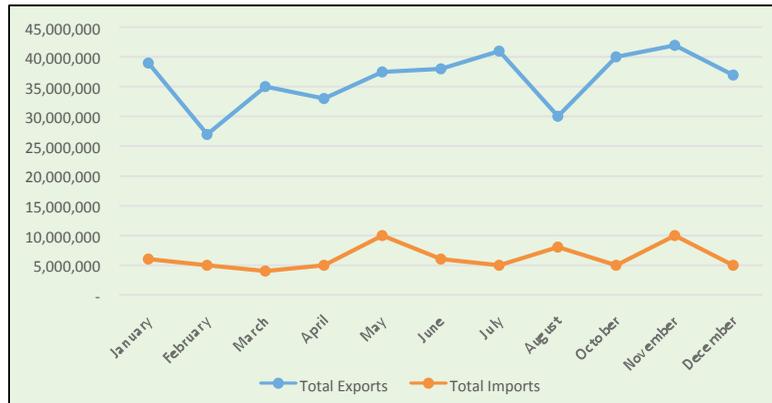


Figure 1. Values of Indonesian Cocoa Trade to the World, in 2013 (US \$)

Source: comtrade.un.org, data processed, 2014

As the main exporter of CPO and cocoa, Indonesia should be able to play an important role in the export activity and gain many advantages when ASEAN free trade area is implemented in 2015. However, Indonesia must face challenges due to the fact that the increasing cocoa processing industry in Indonesia is not accompanied by the balance supply of cocoa bean. The domestic cocoa bean production was expected to continue to decline as a result of the declining productivity of cocoa farmers due to the old age of the plants. Thus, the import of cocoa beans was expected to continue to rise. This fact proves that Indonesia is still not capable to optimise its potential to boost the economy due to its high dependence on abundant resources, natural resources and labour intensive (Tambunan, 2003).

Accordingly, Indonesian international trade for CPO product has experienced declining trend meanwhile, cocoa product is relatively stable, which has made Indonesia target the country near to it

as its potential market. Singapore and Malaysia are the countries located near to Indonesia and need much of CPO and cocoa from Indonesia. It means that the cost of transportation is relatively low. Moreover, it is the important factor in the flow of international trade (Coughlin, 2004). However, it is recognised that the main current problem faced by Indonesia is not only the transportation cost but also the weak competitiveness of Indonesian products in the global competition. This weakness is quite risky since product competitiveness is an important key for Indonesia to be a featured player in the ASEAN market. Further, a core finding shows that internationally active countries tend to be more productive than countries which only produce for the domestic market (Sun & Heshmati, 2010). Thus, improving the Indonesian export performance is a key factor that needs to be considered in making economic decisions in order to improve competitiveness (Athanasoglou,

Backinezos, & Georgiou, 2010). Countries tend to be more productive than others which only produce for the domestic market.

Since the feature of Indonesia in ASEAN is important, on one hand, large potential exports for palm oil and cocoa, on the other hand, the level of Indonesian competitiveness are still low. Therefore, the objective of this study is to analyse the competitiveness of Indonesian palm oil and cocoa export product commodities to Malaysia and Singapore.

METHOD OF ANALYSIS

This research employed descriptive quantitative approach. Commodities as the samples in this study comprised of palm oil (code HS 151110) and cocoa (code HS 180100). Data and information concerning export and import were collected from United Nation’s Commodity Trade Statistics (UN-COMTRADE) database for the period of 2009-2013. In addition, to analyse the competitiveness of the two commodities, Revealed Comparative Advantage (RCA) method was used. According to Tambunan (2004), the RCA calculation method is as follows:

$$RCA = \frac{x_{ij}/x_{it}}{w_j/w_i} \dots\dots\dots(1)$$

Where,

Xij = exports of Indonesian palm oil/ cocoa to ASEAN

Xit = total of Indonesian exports to ASEAN

Wj = world exports of palm oil/ cocoa to ASEAN

Wt = total of world exports to ASEAN

Meanwhile, RCA index is the comparison between the current RCA value and the RCA value of last year. RCA index formula is:

$$\text{Index of RCA} = \frac{RCA_t}{RCA_{t-1}} \dots\dots\dots(2)$$

RCA_t = RCA value year (t)

RCA_{t-1} = RCA value year (t-1)

RCA index ranges from zero to infinity. RCA index value which equals to one means that there is no increase in RCA or export performance of Indonesia in ASEAN.

RESULTS OF COMPETITIVENESS ANALYSIS

Competitiveness is the ability of companies, industries, regions, countries, or among regions to generate relatively high and sustainable income factor and employment in facing international competition (source: OECD). According to Porter (1990), competitiveness is identical with productivity where the level of output produced is for each input used. Two indicators that are commonly used to measure commodity competitiveness are comparative advantage and competitive advantage. The comparative advantage factor can be considered as a natural factor whereas competitive advantage factor is a factor that can be acquired or developed/created (Tambunan, 2003).

RCA is defined as the comparison ratio between the total export of a commodity in a country over the world export value of that commodity. Therefore, RCA is able to demonstrate the performance of the export

of a commodity. RCA value which is greater than one indicates good export performance, so it is suggested that the commodity is continuing to be developed by specialising the commodity.

Competitiveness of Indonesian Palm Oil in Malaysia

Based on the results of RCA estimation, the comparative advantage of Indonesian CPO in Malaysian market is pretty good, as

indicated by RCA greater than one during the period of 2010-2011 ranging from 1.14 up to 3.76. However, in the period of 2012-2013, the RCA index value indicated a low value, $RCA < 1$. The low value is due to the decrease in the value of Indonesian CPO exports. The decreasing value of Indonesian CPO exports in 2012-2013 was not only due to the declining production of Indonesian CPO but also Malaysia’s domestic policy concerning CPO imports.

Table 1
Comparative Advantage of Indonesian CPO in Malaysian Market

Year	Indonesian Exports to Malaysia (million US\$)		World Exports to Malaysia (million US\$)		RCA	RCA Index
	Indonesian CPO (Xij)	Total (Xit)	World CPO (Wj)	Total (Wt)		
2009	635	27,247	645	268,370	9.70	-
2010	1,059	9,362	1,087	350,746	36.51	3.76
2011	1,314	10,995	1,455	509,640	41.87	1.14
2012	535	45,121	638	510,455	9.48	0.22
2013	126	39,232	176	163,402	2.97	0.31

Source: comtrade.un.org, data processed, 2014

Although the RCA index value of Indonesian palm oil declined throughout the period of 2010-2013, in total, the value of Indonesian exports of all commodities in Malaysian market indicated an upward trend. Even the contribution of all Indonesian export commodities reached approximately 10% of the world’s total export commodities to Malaysia. Besides Indonesia, palm oil exporting countries to Malaysia include Cambodia, Canada, Fiji, Thailand, and the Philippines. In 2013, the share of Indonesian CPO exports reached 68.5% compared to

other exporting countries such as Cambodia (5.4%), Canada (of 0.02%), Fiji (0.24%), Thailand (22.9%), and the Philippines (2.91%). Thus, it can be concluded that the contribution of Indonesian CPO in the Malaysian market is still far greater than the supply of world CPO in the Malaysian market. It demonstrates that Indonesia has an important role as the largest palm oil supplier country in the Malaysian market. The geographical position of Indonesia is an important factor for Malaysia to make Indonesia as the CPO supplier.

Competitiveness of Indonesian Palm Oil to Singapore

The RCA index of Indonesian CPO to Singapore market over the period 2009-2013 indicated an upward trend. In the period of 2010-2011, the RCA index was less than one, while in 2012-2013 period the index was greater than one. It revealed the Indonesian CPO competitiveness in

Singapore market. Data showed that over the period 2009-2011, the Indonesian CPO exports increased significantly, while in the 2012-2013 period, the total palm oil exports decreased. Despite the decline in exports in 2012-2013, the trend of RCA index tended to increase. It occurred because the CPO export trend of various countries in the world that entered Singapore also showed a downward condition.

Table 2
Comparative Advantage of Indonesian CPO in Singapore Market

Year	Indonesian Exports to Malaysia (million US\$)		World Exports to Malaysia (million US\$)		RCA	RCA Index
	Indonesian CPO (Xij)	Total (Xit)	World CPO (Wj)	Total (Wt)		
2009	357	10,262	363	201,006	19.26	-
2010	460	13,723	562	248,444	14.81	0.76
2011	669	18,443	882	293,638	12.08	0.81
2012	601	17,135	840	297,740	12.43	1.02
2013	417	16,686	540	278,210	12.89	1.03

Note. Source from <http://comtrade.un.org>, data processed, 2014

Countries such as Fiji, Finland, Malaysia and the Philippines are also the exporters of CPO to Singapore. However, the data in 2013 showed that the contribution of Indonesian CPO exports was 77.33%, which was very high compared with the four other exporting countries – 0.04% (Fiji), 0.000001% (Finland), 22.25% (Malaysia) and 0.37% (Philippines). Malaysia is still the main competitor for the Indonesian CPO exports to Singapore market. Geographical factors proximity as well as Indonesian abundant CPO production make Singapore market dependent on the CPO supply from Indonesia.

COMPETITIVENESS OF INDONESIAN COCOA

Cocoa is one of the leading plantation commodities which holds an important role in the Indonesian economy. The development of Indonesian cocoa export is still dominated by the exports of primary products in the form of cocoa beans so that the potential development of products for export is still widely opened since Indonesia is also the third largest cocoa producer in the world, after Ivory Coast and Ghana. The world cocoa need is heavily dependent on the cocoa production of Indonesia, not only for the ASEAN countries, but also for

America, Brazil, and Europe markets, which depend on the Indonesian cocoa supply. The largest export destination countries for cocoa and cocoa products in the European Union are Germany, France, Belgium, Italy, Austria and Spain.

Data showed that the production volume of the Indonesian cocoa exports to various export destinations increased significantly. The value of Indonesian cocoa exports in 2010 was US\$ 1.6 billion. In January to July 2012, the Ministry of Commerce released processed data of cocoa export volume which reached 121,000 tons, an increase to 37.5% compared to the same period in 2011 of merely 88,000 tons. The increasing production of cocoa for export indicates that Indonesia plays an important role as a supplier of world cocoa. The upward trend of monthly price of world cocoa has a positive effect on the climate of Indonesian cocoa production.

Competitiveness of Indonesian Cocoa to Malaysia

In ASEAN, the main destination countries of Indonesian cocoa export commodities are Malaysia, Singapore and Thailand. Malaysia is the largest consumer of Indonesian cocoa exports, followed by Singapore and Thailand. Nonetheless, the data revealed that the value of Indonesian cocoa exports in the period 2009-2013 period showed a downward fluctuation trend. The decline was due to the disrupted economic condition of Indonesian cocoa consuming countries. Although the trend of cocoa exports tended to decline, the total exports of all products from Indonesia to Malaysia had an upward trend. At least about 10 percent of the total of export commodities of all over the world is supplied by Indonesia.

Due to the declining value of the Indonesian cocoa exports, the results of RCA index calculation also showed a downward trend. However, the competitiveness

Table 3
Comparative Advantage of Indonesian CPO in Singapore Market

Year	Indonesian Exports to Malaysia (million US\$)		World Exports to Malaysia (million US\$)		RCA	RCA Index
	Indonesian CPO (Xij)	Total (Xit)	World Cocoa (Wj)	Total (Wt)		
2009	451	27,247	606	268,370	7.32	-
2010	550	9,362	719	350,746	28.67	3.91
2011	411	10,995	883	509,640	21.56	0.75
2012	225	45,121	742	510,455	3.44	0.15
2013	302	39,232	462	163,402	2.72	0.79

Source. <http://comtrade.un.org>, data processed, 2014

of Indonesian cocoa exports still has a comparative advantage because Indonesia is the largest cocoa supplier in Malaysian market. It can be seen from the value of Indonesian cocoa export supply which is almost equal with the total of the world supply of cocoa exports.

Competitiveness of Indonesian Cocoa to Singapore

Impairment condition of Indonesian cocoa exports not only occurred in Malaysian market but also in Singapore market. As the country of the second largest export destination for Indonesian cocoa export commodities, over the period of 2009-2013, the data value of Indonesian cocoa exports to Singapore showed a downward trend. The similar condition was also indicated by the value of world cocoa exports. The condition resulted in the index of RCA calculation

of Indonesian cocoa in Singapore market to show an upward trend, which indicates that Indonesian cocoa has a fairly strong competitiveness in Singapore market.

A different situation was shown by the trend of the total Indonesian commodities exported to Singapore. Data showed that there was an increase in exports of a wide range of Indonesian export commodities during the period of 2009-2013. Although the contribution of Indonesian exports is still below ten percent, the geographic proximity and strengthening cooperation relations between Indonesia and Singapore gave a positive signal for improving economic cooperation between the two countries. There are still many opportunities and potential that can be developed for Singapore market. The stable Singapore economy which is recognised as the best in ASEAN region has become an attraction for the export of Indonesian various products.

Table 4
Comparative Advantage of Indonesian Cocoa in Singapore Market

Year	Indonesian Exports to Singapore (million US\$)		World Exports to Singapore (million US\$)		RCA	RCA Index
	Indonesian Cocoa (X _{ij})	Total (X _{it})	World Cocoa (W _j)	Total (W _t)		
2009	139	10,262	177	201,006	15.32	-
2010	151	13,723	332	248,444	8.25	0.53
2011	98	18,443	228	293,638	6.84	0.82
2012	92	17,135	229	297,740	7.02	1.02
2013	72	16,686	178	278,210	6.77	0.96

Note. Source from <http://comtrade.un.org>, data processed, 2014

CONCLUSION

In this research, both qualitative and quantitative approaches were applied to analyse the competitiveness of Indonesian

palm oil and cocoa export product commodities to Malaysia and Singapore markets. In general, the export commodities of oil palm and cocoa from Indonesia to

Malaysia and Singapore during 2009-2013 showed fluctuating trends which tended to decline. Fluctuations in the Indonesian export data were not only caused by such internal factors as the declining supply of production inputs, but also due to the policy of the partner countries which reduced the consumption of imports as the impacts of the soaring prices of both commodities in the international market.

The calculation results of competitiveness index using RCA for both commodities revealed that during 2009 and 2013, the competitiveness index values of both commodities to Malaysia and Singapore markets were still quite good, as indicated by the value of RCA index which is greater than one. This indicates the rise in net export volume and improvement in the trade structure of Indonesian palm oil and cocoa export product commodities. Further, Indonesian palm oil and cocoa have a fairly strong competitiveness in Malaysia and Singapore markets.

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The Effects of Accountability, Objectivity, Integrity, Working Experience, Competence, Independence and Motivation of the Examiner toward the Quality of Inspection Results at the Inspectorate of Lumajang Regency

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ABSTRACT

This research was conducted to see and assess the extent to which government auditors can consistently maintain the quality of audit services that it provides. Moreover, it also aims to examine and analyse the effects of accountability, objectivity, integrity, working experience, competence, independence and motivation on the quality of examination results with hypothesis testing using multiple regression analysis. This study uses the purposive sampling method to obtain 30 respondents working at the Inspectorate of Lumajang as the research samples. Data used in the study were primary data obtained from the respondents directly through a questionnaire. The results show that accountability, objectivity, integrity, working experience, competence and independence have significant effects on the quality of the examination results, whereas motivation does not significantly affect the quality of the examination results in Inspectorate of Lumajang.

Keywords: Accountability, Competence, Independence, Integrity, Motivation, Objectivity, Quality of Inspection Results, Working Experience

INTRODUCTION

Every public organisation has a purpose in implementing service functions, empowerment and development. To achieve that purpose, an organisation needs to manage management functions, one of which is supervision. Inspectorate has the duty to supervise the district government's affair, the realisation of the guidance on the

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implementation of village government and the implementation of government affairs of the village. In accordance with the main duties and functions as an internal examiner of government in Lumajang regency, Lumajang inspectorate staff should conduct regular inspections of the Village Unit in the district.

The information contained in the Inspectorate Audit Reports should be in high quality to ensure that in implementing the suggestions of inspectorate, the Head of the Regional get great benefits and the decisions taken will be accurate. Thus, the accountability, objectivity, integrity, working experience, competence, independence and motivation of the internal examiners in carrying out their responsibilities need to be considered. Public sector accountability to the establishment of good governance in Indonesia is increasing and competence, as well as independence, is the standard that must be met by the inspectorates as internal auditors. This demand is reasonable because some studies have shown that the economic crisis in Indonesia was caused by poor management and bureaucracy (Sunarsip, 2001).

This study is important because it aims to test and analyse the quality of audit's results to help the inspectorates determine the factors that might influence the quality of the audit results. This research was done to determine and assess the extent to which government auditors can consistently maintain the quality of audit services that they provide. Moreover, it also aims to examine and analyse the effects of

accountability, objectivity, integrity, working experience, competence, independence and motivation on the quality of Inspection results with hypothesis test using multiple regression analysis.

The research of Mardisar and Ria (2006), Riani (2013) and Sibero (2010) showed that accountability significantly affects auditors' quality of work. The higher accountability an auditor has, the better quality of auditors' work will be. Based on these explanations, the hypothesis raised is: H1: Accountability affects the quality of Inspection results. Research of Badjuri (2012) concluded that the objectivity of public sector auditors did not affect the quality of inspection results, while research conducted by Sukriah et al. (2009) and Ayuningtyas and Pamudji (2012) stated that objectivity affected the quality of the Inspection results. In other words, the better the auditor maintains objectivity during the audit process, the better the quality of the audit results will be. Based on these explanations, the hypothesis built is: H2: Objectivity affects the quality of Inspection results.

The research of Sukriah et al. (2009) stated that integrity may receive an unintentional error and an honest difference of opinion but it cannot accept dishonesty of principle. Research of Ayuningtyas and Pamudji (2012) and Badjuri (2012) concluded that integrity has a significant influence on the quality of Inspection results. By having high integrity, the auditor can improve the quality of Inspection results. Based on these explanations, the

hypothesis built is: H3: Integrity affects the quality of Inspection results. Research of Badjuri (2012) and Ayuningtyas and Pamudji (2012) concluded that working experience did not affect the quality of the Inspection results, while the results of Wardayati's (2006) research concluded that working experience influenced internal auditor's work about 8%. The research of Sukriah et al. (2009) demonstrated that working experience affected the quality of the Inspection results. This shows that the more working experience an auditor has, the more quality of inspection results will be. Based on these explanations, the hypothesis is built: H4: Working experience affects the quality of Inspection results.

The research of Sibero (2010) concluded that the competence did not affect the quality of Inspection results, while the research conducted by Alim et al. (2007), Sukriah et al. (2009), Ayuningtyas and Pamudji (2012) and Badjuri (2012) proved that competence significantly affected the quality of Inspection results. This means that the audit quality will be attained if the auditor has a good competence. The better competence the auditors have, the better quality of inspection results will be. Based on these explanations, the hypothesis built is: H5: Competence affects the quality of the Inspection results. Sukriah et al. (2009), Badjuri (2012) and Ayuningtyas (2012) concluded that independence did not significantly influence the quality of Inspection results, while the research of Alim et al. (2007) showed that independence significantly affects the quality of the

Inspection results. In that study, the independent opinion of an auditor is more reliable and is trusted better by the users of financial reports than the dependent opinion, so it can affect the quality of the audit itself. Based on these explanations, the hypothesis built is: H6: Independence affects the quality of Inspection results. Research conducted by Efendy (2010), Rosnidah (2010) and Rinaldi et al. (2012) concluded that the motivation has a significant influence on the quality of Inspection results. With these explanations, the hypothesis built is: H7: motivation affects the quality of Inspection results.

Based on the description above, the problems will be discussed in this study are: (1) Does accountability affect the quality of Inspection results? (2) Does objectivity affect the quality of Inspection results? (3) Does integrity affect the quality of Inspection results? (4) Does working experience affect the quality of Inspection results? (5) Does competence affect the quality of Inspection results? (6) Does independence affect the quality of Inspection results? (7) Does motivation affect the quality of Inspection results? Further, the purpose of this study is to examine and analyse the influence of accountability, objectivity, integrity, working experience, competence, independence and motivation on the quality of Inspection results.

RESEARCH METHODS

Research Design

This study consists of one dependent variable (i.e. the quality of Inspection results) and 7 independent variables (accountability,

objectivity, integrity, working experience, competence, independence and motivation). The variable measurement scale uses 5-point Likert scale with these following score classifications; 1 for Strongly Disagree (SD), 2 for Disagree (DA), 3 for Neutral (N), 4 for Agree (S) and 5 for Strongly Agree (SA).

Types and Sources of Data

The data type of this research is primary data obtained directly from the respondents by distributing questionnaires to Inspectorate staff members of Lumajang. The primary data collected were used to answer the research questions.

Population and Sample

The population in this study include all staff members of the Inspectorate of Lumajang. The sample used is purposive sampling to select 32 Inspectorate members who serve as inspectors at the Inspectorate of Lumajang from the total population of 46 people.

Data Analysis Methods

The first data analysis technique is testing the quality, validity and reliability of the data. In the validity test, an instrument is said to be valid if it is able to measure what should be measured according to the specific situation and goals. In a reliability test, a reliable instrument is an instrument that is consistent in measuring the same symptom. This research uses descriptive statistical techniques, the classical assumption test and hypothesis test. Descriptive statistics was

used to determine the profile of research data and the relationship between the variables used. In order to describe the respondents' age, gender, position, length of work and the description of the study variables characters, the frequency distribution table is used to show the average, median range and deviation standard. After the validity and reliability were determined, the classical assumption test was then performed.

The classical assumption tests used are normality test, multicollinearity test and heteroscedasticity (heterokedastisitas) test. Normality test is done by using the Kolmogorov-Smirnov and by looking at the graph. Multicollinearity test is performed using Variance Inflation Factor (VIF). Heteroscedasticity (Heterokedastisitas) test is detected by looking at whether there is a specific pattern on a scatterplot graph or not. To test the hypotheses, the partial and simultaneous tests are done with simple and multiple regression analysis. The form of systematic multiple regression analysis is as follows:

$$Y = a + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + e$$

RESEARCH RESULTS

Descriptive statistics

In descriptive statistics with these research variables, accountability, objectivity, integrity, work experience, competence, independence, motivation and the quality of Inspection results are obtained. The results are presented in Table 1 below.

Table 1
Descriptive Statistics Results

Research variable	N	Min	Max	Mean	Std. Deviation
Accountability	30	4	5	4.42	0.34
Objectivity	30	4	5	4.42	0.32
Integrity	30	4	5	4.42	0.32
Work Experience	30	4	5	4.42	0.32
Competency	30	4	5	4.4	0.31
Independency	30	4	5	4.34	0.3
Motivation	30	3	4	3.11	0.39
Quality Inspection Result	30	4	5	4.53	0.35
Valid N (listwise)					

Source: Primary data processed, 2014

Normality Data Test

Based on the results of data normality test using Kolmogorov-Smirnov, it can be inferred that the data have normal distribution. It can be seen by looking at the value of 0.900 of Kolmogorov-Smirnov test

with the significance level of 0.392. If the Kolmogorov-Smirnov significance value is higher than 0.05, it can be asserted that the data possess a normal distribution. This result is also supported by the chart where the data follow the diagonal line.

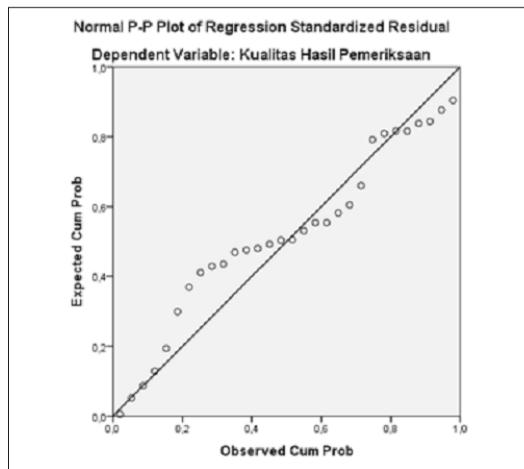


Figure 1. Normality Test Data

Multicollinearity Test

Based on the multicollinearity test performed by looking at VIF, it can be concluded that there is no Multicollinearity because there

is no VIF which is higher than 10 and the Tolerance values are close to 1. A summary of the Multicollinearity Test is given in the following table.

Table 2
Multicollinearity Test

Research Variables	Tolerance	VIF	Interpretation
Accountability	0.75	1.32	Non-Multicollinearity
Objectivity	0.72	1.38	Non-Multicollinearity
Integrity	0.82	1.22	Non-Multicollinearity
Working Experience	0.86	1.17	Non-Multicollinearity
Competence	0.93	1.08	Non-Multicollinearity
Independence	0.94	1.24	Non-Multicollinearity
Motivation	0.51	1.97	Non-Multicollinearity

Source: Primary data processed, 2014

Heterocedasticity (Heterokedastisitas) Test

Heterocedasticity test concluded that the regression model did not consist heterocedasticity. In other words, there is a common variant of residuals from one observation to another observation. This

conclusion was obtained by looking at the spread of dots that spread out randomly which does not form clear specific pattern, and spread out both above and below 0 on the Y-axis. Heterocedasticity test results are illustrated in the following image.

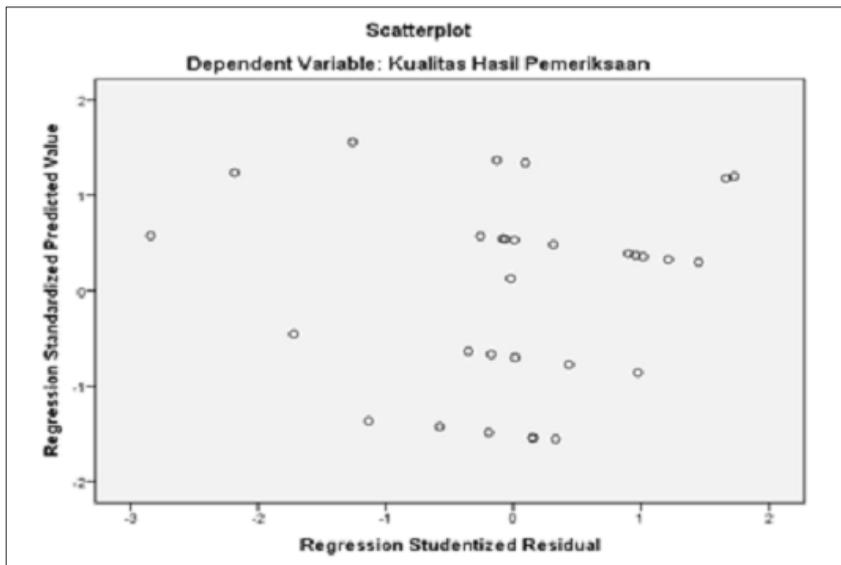


Figure 2. Heterocedasticity (Heterokedastisitas) Test

Hypothesis Test

Having performed classical assumption and obtained the conclusion that the model had been used to test multiple

regression analysis, the next step is to test the hypothesis. A hypothesis test result is shown in the following table.

Table 3
Hypothesis Test Coefficients

Model	Unstandardised Coefficients B	Std. Error	Standardised Coefficient Beta	T	Sig.	Collinearity Statistics Tolerance	VIF
(Constant)	19,945	5,961		3,346	,001		
Accountability	-,335	,115	,287	2,900	,005	,747	1,321
	,435	,130	,338	3,343	,011	,724	1,381
Objectivity	-,546	,249	-,208	-2,189	0,32	,817	1,223
Integrity	,518	,172	-,279	-3,010	,004	,857	1,166
Working							
Experience	,535	,258	,185	2,074	,042	,927	1,078
Competence	-,463	,285	,185	-2,494	,015	,943	1,241
Independency	-,032	,058	-,027	-,555	,585	,507	1,972
Motivation							

Regression equality model which can be written from the results in the form of the regression equation is:

$$Y = 19.945 + 0,335X1 + 0,435X2 - 0,546X3 - 0,518X4 + 0,535X5 - 0,463X6 - 0,032X7 + e$$

DISCUSSION

Based on the results of hypothesis testing, the variables of accountability, objectivity, integrity, working experience, competence and independence were found to partially give significant effects on the quality of Inspection results.

The Influence of Accountability on the Quality of Inspection Results

The finding of the significant effect of accountability on the quality of inspection result shows that the higher an auditor's accountability, the higher the quality resulted from inspection. This agrees with the research done by Riani (2013) which describes accountability significantly affects the quality of auditors' inspection results. There are social psychological research that proves the relationship and the influence of accountability on the quality of work. People with high accountability devote their effort (the intelligence) bigger than those who have low accountability in doing their works (Cloyd, 1997).

The influence of Objectivity on the Quality of Inspection Results

The result of this study demonstrated objectivity variables have significant influence on the quality of Inspection results. This result agrees with the research conducted by Sukriah et al. (2009), Queena and Rohman (2012) and Ayuningtyas and Pamudji (2012), which also proved that objectivity affects significantly on the quality of inspection results.

The Influence of Integrity on the Quality of Inspection Results

The results of the study showed that integrity has a significant influence on the quality of inspection result, and this is in line with the research done by Ayuningtyas and Pamudji (2012), Queena and Rohman (2012) and Badjuri (2012), which proved that integrity has a significant influence on the quality of audit results. The principle of integrity requires auditors to have good personality based on honesty, courage, wisdom and responsibility to build trust as the basics for making reliable decisions (Pusdiklatwas BPKP, 2008). The higher the integrity of an auditor, the better the quality of inspection result produced.

The Working Experience Influence on the Quality of Inspection Results

The results showed that working experience has a significant influence on the quality of the inspection results, which is in line with the research of Sukriah et al. (2009). Their

study revealed that working experience affects the quality of Inspection results. Mulyadi (2002, cited in Badjuri, 2012) stated that a person whose position is a public accountant should first seek for professional experience under the supervision of more experienced senior accountant.

The Influence of Competence on the Quality of Inspection Results

The results proved that competence has a significant impact on the quality of Inspection results. According to the research by Alim et al. (2007) and Efendy (2010), competence has a significant effect on the quality of audit. This means that, the quality of audit will be attained if the auditor has good competence. The higher the competence of the auditor, the better quality of the audit results will be.

The Effect of Independence on the Quality of Inspection Results

The results demonstrated that independence variable has a significant influence on the quality of the Inspection results. According to the study of Alim et al. (2007), independence significantly affects the audit quality, as also highlighted by Mayangsari (2003) who proved that the difference in auditors' opinion are caused by independence. Independent auditor's opinion can be trusted more by users of financial reports than those who are not independent as it will affect the quality of the audit.

The Effect of Motivation on the Quality of Inspection Results

The results of the study described that motivation variable has no significant effect on the quality of the Inspection results. This is in contradiction with the research conducted by Efendy (2010) and Rinaldi et al. (2012) which concluded that motivation has a significant effect on audit quality. Efendy (2010) stated that motivation is the only variable that makes a person to have a fighting spirit to achieve the goals and meet the existing standards. However, as seen in the results of research conducted at Inspectorate of Lumajang, there is no significant effect of motivation variable on the quality of Inspection results. The researchers concluded that the inspectors at the Inspectorate of Lumajang have low motivation, therefore they do not encourage themselves to achieve the goals and meet the existing standards. Besides, the low motivation among the Inspectors does not motivate them to excel, commit to the group and have more initiative and high optimism.

CONCLUSIONS

Based on the results of research on the Effects of Accountability, Objectivity, Integrity, Working Experience, Competence, Independence and motivation on the Quality of Inspection Results, it is concluded that: (1) Accountability affects significantly on the quality of Inspection results, hence the higher accountability the auditor has, the better quality of the Inspection results will be. (2) Objectivity significantly affects the

quality of the Inspection results, so the better the auditor maintains objectivity during auditing, the better quality of the audit results will be. (3) Integrity has a significant effect on the quality of Inspection. An auditor can improve the quality of inspection result by having high integrity. (4) Working experience significantly affects the quality of Inspection result; thus, the more experience the auditor has, the better the results of inspection will be. (5) Competence has a significant effect on the quality of Inspection result; thus, the higher competence of the auditor, the better quality of Inspection result will be. (6) Independence has a significant effect on the quality of Inspection result, so the higher the auditors' independence, the better the quality of Inspection results. (7) Motivation has no significant effect on the quality of Inspection result. Therefore, high motivation has no significant effect on improving the quality of Inspection results.

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“Taking Risk” in the Era of HIV: A Closer Look at Selling Sex in Thailand

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ABSTRACT

Using game-theoretical modelling, this paper analyses the role of risk perception and signalling on HIV transmission between commercial sex workers (SW) and their clients. The paper also provides results of a survey conducted in late-2014 in Thailand involving 200 SWs (female sex workers, FSW, and male and transgender sex workers, MTSW), as well as 67 clients regarding condom use and HIV testing. It was found that: (1) incomplete information and individual risk perceptions are important factors for engaging in unprotected sex; (2) there is potential for signalling but it is rather weak in practice; and (3) MTSW, as well as men, who have sex with men (MSM) represented the highest-risk groups that are highly vulnerable and exposed to HIV.

Keywords: Commercial Sex, Condom Use, HIV Transmission, Incomplete Information, Risk Perception, Signalling

INTRODUCTION

According to UNAIDS (2014, p. 229), millions of people around the world are vulnerable to HIV infection and AIDS is the leading cause of death among women of reproductive age and young adolescents. The most frequent mode of transmission of HIV is through sexual contact with an infected person. According to the Thai National AIDS Committee

(2014, p. 8), new HIV infections in Thailand by unprotected sexual contact is as high as 90%, of which 41% are among male and transgender sex workers (MTSW) and men who have sex with men (MSM), 12% are female sex workers (FSW) and their clients, 33% in discordant couples,

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and 4% among those engaging in casual sex. In general, commercial sex workers (SW) are at higher risks of acquiring and transmitting HIV due to the nature of their work, which includes multiple concurrent partners and inconsistent condom use. In 2012, the HIV prevalence rate among FSW in Thailand working in the venue-based sex market was 2.2%, but this could vary from place to place and reach as high as 20% for non-venue-based FSWs in Bangkok (Thai National AIDS Committee, 2014, pp. 5-6). Furthermore, among male sex workers (MSW), the HIV prevalence rate was 12.2%, which remained significantly higher than in most groups of FSWs (3% nationally) and MSM (7%).

Although the number of sexual partners is positively correlated with the incidence of HIV (and other STDs), research has suggested that condom use is a more effective method of reducing HIV infection than simply reducing the number of sexual partners (Reiss & Leik, 1989, p. 411). As such, this paper focuses on SWs and their clients regarding condom use (protected sex), where HIV-positive (HIV+) and HIV-negative (HIV-) persons may interact. Also adopted are game-theoretical models that take into account the fact that there are often issues of incomplete information regarding HIV status in the commercial sex market. Furthermore HIV status, even when known, is usually not shared among partners, and clients (as well as SWs) could try looking for signals to deduce information about his/her partner's HIV status. The

models show how risk perceptions or more specifically perceived probabilities of partner's HIV status can be important in determining outcomes in general and also when signalling is involved.

This paper also presents results of a non-random convenience sample of a survey conducted in late-2014 involving FSW and MTSW, as well as 67 clients (of which 36 are MSM). Specifically, venue-based FSW is distinguished from non-venue-based FSW and MTSW. In Thailand, many venue-based establishments work with the Ministry of Public Health to provide regular STI and HIV testing for SWs (Guest et al., 2007, p. 55), and have made it a policy requiring workers to provide results of HIV testing every 3 months. Hence, the venue-based commercial sex market could supposedly provide signals about the "quality" of SWs. In this paper, it is shown theoretically and empirically that HIV infections continue because uninfected persons engage in unprotected (without a condom) sex with infected persons under conditions of incomplete information and differences in risk perceptions in the commercial sex market.

GAME-THEORETICAL MODELS

Assumptions on Individual Preferences

There are a number of important papers that model the commercial sex market (see for instance, Ahlburg & Jensen, 1998; Edlund & Korn, 2002; Gertler, Shah & Bertozzi, 2005; etc.). Following Schroeder

and Rojas (2002), we assume the following assumptions about individual preferences regarding sex,¹ taking u_i (type of sex, s_i, s_j) to denote the utility for the person i depending on the type of sex, either unprotected or risky sex (RS), protected sex (PS) or no sex (NS), and Player i 's and j 's (partner's) HIV status to be $s_{i,j} = \{-, +\}$ representing HIV- and HIV+ respectively, then:

1. HIV- person's prefer unprotected or risky sex to protected sex with HIV- partner

$$u_i(RS, -, -) \succeq u_i(PS, -, -)$$

2. HIV- person's prefer protected sex to risky sex with HIV+ partner

$$u_i(PS, -, +) \succeq u_i(RS, -, +)$$

3. HIV- person's prefer no sex to risky sex with HIV+ partner

$$u_i(NS, -, +) \succeq u_i(RS, -, +)$$

4. HIV+ person's preference is described by

$$u_i(RS, +, +/ -) \succeq u_i(PS, +, +/ -) \succeq u_i(NS, +, +/ -)$$

With the above preference assumptions and under conditions of perfect information, it

is easy to show that:² (a) if Players i and j have the same HIV status, i.e. Player i is HIV- (HIV+) and knows Player j is HIV- (HIV+), then $RS' \succeq PS' \succeq NS$, (b) if Player i is HIV- and knows that Player j is HIV+, then $PS, NS \succeq RS$, and (c) if Player i is HIV+ and knows that Player j is HIV-, then $RS \succeq PS' \succeq NS$. In sum, RS is the dominant strategy if HIV status is the same for both Players, but RS is strictly dominated if Players i and j have different HIV status. This, although simple enough, still begs the question, “So why do uninfected persons still have risky sex with infected persons?”

Game-theoretical Model I

Provided here is a simple incomplete information game involving two players, Player 1 and 2, who are either HIV+ or HIV-. Player 1 may offer sex (say, SW) after which Player 2 (say, client) makes a “counteroffer” of either PS or RS . Assume that Player 2 does not know Player 1's HIV status, but may have some subjective probability or belief about Player 1's HIV status (μ). After Player 1 confirms, the couple have sex if in agreement (either PS or RS), otherwise both end up with NS . Figure 1 considers the case in which Player 2 is HIV-. Ruling out the case in which violence or the threat of violence may be used, which would complicate the analysis,

¹ Note that Rich Lafferty has criticized their game-theoretical model.

² We could further have $u_i(PS, -, +) \sim u_j(NS, -, +)$, or $u_i(PS, -, +) \succeq u_j(JS, -, +)$ for risk-taking i , or $u_j(NS, -, +) \succeq u_j(PS, -, +)$ for risk-averse i . Note also that assumption 4 includes $u_i(RS, +, -) \succeq u_i(PS, +, -)$, that is, HIV+ person prefers unprotected sex with HIV- partner.

and keeping things manageable, the payoffs are depicted as shown in the figures. Note that the amounts are hypothetical with larger positive (negative) numbers referring to higher (lower) payoffs.

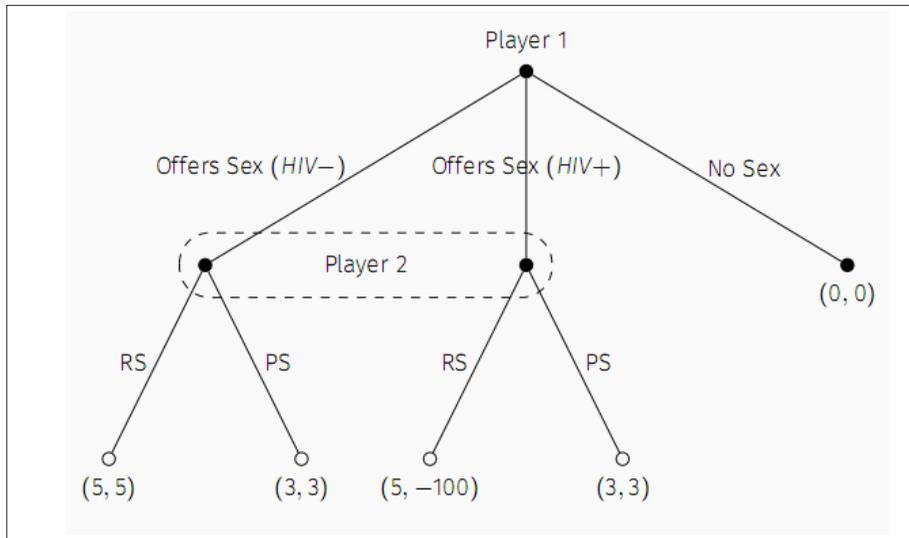


Figure 1. HIV-negative Player 2

Representing Player 2’s belief that Player 1 is HIV+ by μ , then for Player 2, we have $EU^{RS} = 5(1 - \mu) - 100\mu$ and $EU^{PS} = 3(1 - \mu) + 3\mu$, representing expected utilities for risky sex and protected sex, respectively. Solving gives a “threshold” value of μ of about 2%. That is, given the payoffs and the structure of the game represented in Figure 1, Player 2’s expected utility is higher choosing *PS* over *RS* when (s)he believes that infection rates are more than 2% (or $\mu > 2\%$). Note that the threshold μ is lower the larger the negative payoff of becoming infected (which is set to -100). This implies that Player 2, assigning a considerably larger negative payoff from infection,

would typically not engage in *RS* unless (s)he believes the HIV prevalence rate to be significantly smaller. Arguably, a risk-averse Player 2 would assign such a large negative payoff of being infected. Conversely, the smaller the perceived negative payoff from infection, the higher the “threshold” value of μ , which would correspond to increased risky behaviour. This could happen, for example, as reported in Lakdawalla et al. (2006) who found that in the U.S. HIV treatment breakthroughs have improved health and survival for the HIV patients, thereby presumably reducing the negative payoff from infection would therefore result in their increased sexual activity, which has

facilitated the spread of HIV.³ Be as it may, the incomplete information game presented here demonstrates how a HIV- Player 2’s choice for *RS* depends on his/her belief

about the HIV prevalence rate, μ , which can be influenced by the perceived gravity of the burden from infection.

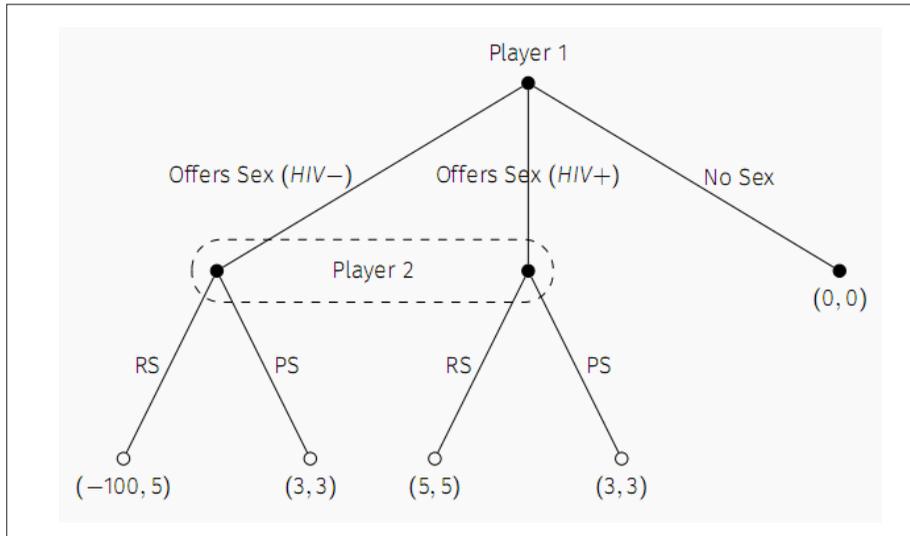


Figure 2. HIV-positive Player 2

The case in which Player 2 is HIV+ is shown in Figure 2. Clearly, here *RS* is the dominant strategy. That is, HIV+ Player 2 prefers *RS* without regard to the HIV status of Player 1 (who might even be HIV-) and is willing to engage in unprotected sex that could result in new infections. Hence, we have here an explanation as to why some infected persons continue to have unprotected sex with uninfected persons (Wenger et al., 1994; Munoz-Perez et al., 1998). This section shows that incomplete

information, together with differences in risk perceptions, is an important reason for the spread of HIV.

Game-theoretical Model II

Reality unsurprisingly presents many complications. For example, the HIV status of SWs and their clients is often hidden and obscure. A client may then look for “signals” to try guessing the HIV status of a SW, for example. The classical signalling model in a dynamic game setting is employed here to model the situation of signalling. As before, consider two players, Player 1 who sends a signal or message $M = \{m^-, m^+\}$, denoting “HIV-free” and “HIV-infected” respectively,

³ On the contrary, Kennedy, et al. (2007) find evidence indicating a significant reduction in risk behaviour associated with antiretroviral therapy (ART) in developing countries.

and Player 2 who receives the signal and decides on the type of action $A=\{NS, PS, RS\}$, denoting “No Sex”, “Protected Sex” and “Risky Sex”, respectively. Nature selects type t_i from the type space $T=\{HIV-, HIV+\}$, representing the HIV status of Player 1. Also, as usual with these games, nature goes first determining the HIV+ rate at θ .

Beginning with the case in which Player 2 (say, a client) is HIV- and does not know Player 1’s HIV status; this time however observes a message m^- or m^+ sent by Player 1 (e.g., corresponding to whether the SW

works in a venue-based establishment or not). As before, PS gives a payoff of 3, RS gives 5, and infection -100 . Some further behavioural assumptions are considered, which are: (a) Player 2 is risk-averse, hence subtract r (add s) for accepting risky (protected) sex when the signal sent to him/her by Player 1 is m^+ , and (b) for a truth-preferring Player 1, sending the true (misleading) message as his/her true type adds (subtracts) to payoff t (c), except when HIV- Player 1 sends m^+ (say with intention to divert from RS) and engages in PS . Figure 3 summarises this game.

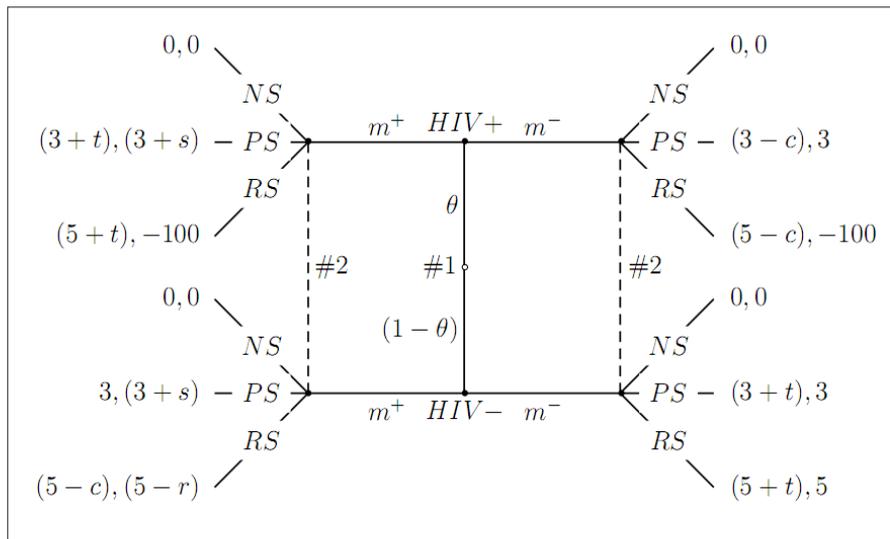


Figure 3. HIV-negative Player 2 receives signal from Player 1

Is there a separating equilibrium? That is, whether each of Player 1 sends message according to one’s type, whether $p_1(m^+ | +) = 1$ and $p_1(m^+ | -) = 0$, is an equilibrium? Here Bayes’ rule gives:

$$\mu(+ | m^+) = \frac{p_1(m^+ | +)p(+)}{p_1(m^+ | +)p(+)+ p_1(m^+ | -)p(-)} = \frac{1 \times \theta}{1 \times \theta + 0 \times (1 - \theta)} = 1$$

That is Player 2 believes that HIV+ Player 1 will send m^+ and similarly $\mu(- | m^-) = 1$. Player 2’s sequential rationality implies $p_2(RS | m^-) = 1$, and $p_2(RS | m^+) = 1$; That is, Player 2 believes that Player 1 is HIV- if and only if m^- is sent, and consequently ends with RS . Hence there is a separating

Perfect Bayesian Equilibrium (PBE) of this type on the further condition that sending a truthful/misleading signal adds/lowers the payoffs (and $c > t$, $c + t \geq 1$), otherwise there is no equilibrium of this type. Equilibrium depends on a truth-telling Player 1.

Next, consider the case when each type of Player 1 sends a message different to one’s true type (i.e. $p_1(m^-|+) = 1$ and $(p_1(m^-|-) = 0)$). With Bayes’ rule, Player 2’s sequential rationality implies $p_2(PS|m^-) = 1$ and $p^2(PS|m^+) = 1$, as long as $s > r$ (and $r + s \geq 1$), which corresponds neatly with Kahneman and Tversky’s (1979) idea of loss aversion, in which the risk-averse Player 2 assigns a significantly larger negative payoff with risky sex than his/her gain in playing safe sex when the signal from Player 1 is m^+ . For example, if $r \leq s$ (e.g., Player 2 is a risk-lover with $RS \gtrsim PS$) when HIV- Player 1 signals m^+ , then $p_1(m^-|+) = 0$, contradicting our hypothesis and PBE breaks down. Hence we have a PBE of this type of risk-averse Player 2; otherwise, there is no equilibrium of this type.

Next, we look for possibilities of a pooling equilibrium. First, consider the case when both types of Player 1 send m^- , that is, $p_1(m^-|+) = 1$ and $p_1(m^-|-) = 1$ or “pooling to the right”. Bayes’ rule implies that $\mu(+|m^-) = \theta$ and $\mu(-|m^-) = (1-\theta)$. Hence, after observing m^- , Player’s 2 expected payoff with RS is $(1-\theta) \times 5 - \theta \times 100 = 5 - 105\theta$, while the expected payoff with PS is $\theta \times 3 + (1-\theta) \times 3 = 3$. Sequential rationality implies that $p_2(PS|m^-) = 1$ when $\theta > 0.019$ (i.e., HIV prevalence rate of about 2%). Player 2 could engage in RS if (s)he believes the

HIV prevalence rate to be lower than about 2%. Considering the left-side information set of the game which corresponds to the off-path action, it is easy to see that Player 2’s optimal action could differ, if and only if (s)he were not risk-averse.

Lastly, when both types send m^+ , that is, $p_1(m^+|+) = 1, p_1(m^+|-) = 1$ or pooling to the left, then PS is notably the dominant strategy for risk-averse Player 2 (with $s > r > 1$). Considering the right-side information set of the game which corresponds to the off-path action, specifically if $\mu(m_1^-|HIV+) \leq 0.019$, Player 2’s optimal action could differ. However, in such a case, Player 1 benefits by deviating to m^- , which is inconsistent with Cho and Kreps’ (1987) *intuitive criterion*, thereby ruling out the case where both types send m^+ as an equilibrium.

For completeness, Figure 4 illustrates the case in which Player 2 is HIV+. As before PS gives a payoff of 3, while RS gives 5, and infection -100. We make some further behavioural assumptions, namely, (a) Player 2, now HIV+, has $RS \gtrsim PS$, and (b) for Player 1, sending the true (wrong) message as his/her true type adds (subtracts) payoff of t (c), except when HIV- Player 1 sends m^+ (say with intention to divert from RS) and engages in PS. We could of course look for separating and pooling equilibrium (and this is left as an exercise for the reader), but the main conclusion is that HIV+ Player 2, under the conditions and assumptions of our model, ultimately has $RS \gtrsim PS$. An HIV+ Player 2’s preferences are not affected by signaling.

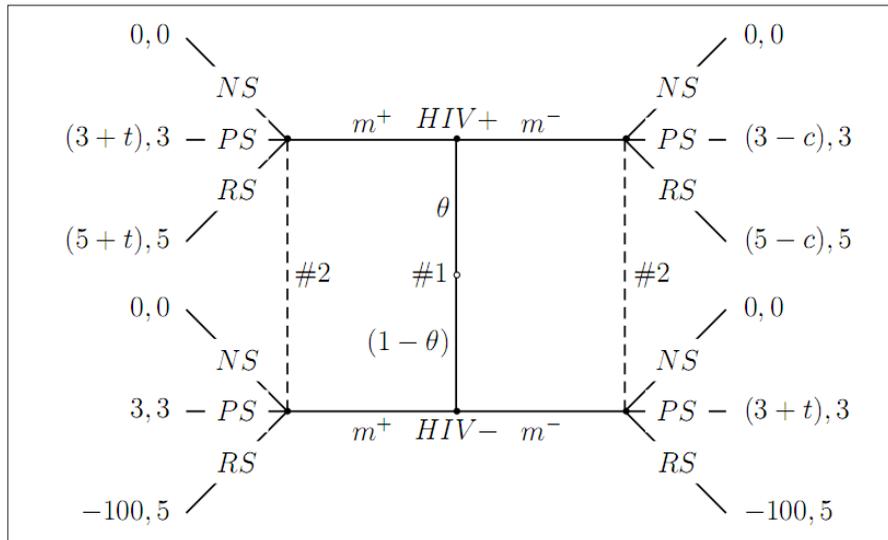


Figure 4. HIV-positive Player 2 receives signal from Player 1

SURVEY DESCRIPTION AND RESULTS

This section provides a summary of the results from a survey conducted in late-2014 from a non-random convenience sample in Bangkok. A total of 200 SWs were surveyed with the help of two established NGOs (100 were FSWs and another 100 were MTSWs). Among the FSWs surveyed, 80 worked in A-GoGo Bars and/or massage parlour (a.k.a. venue-based FSWs), while 20 were freelance (non-venue-based FSWs). Generally, MTSWs worked in the traditional massage parlours, spas and saunas where HIV testing was not a requirement. Also surveyed were 67 clients of which 36 were MSM.

For our sample, the median age of SWs was more or less the same across groups at 27 years (with a standard deviation of 6 years) and about half had been SWs for a period between 1 to 3 years. About 90% of

the venue-based FSWs reported “full-time” employment compared to only 30-40% for freelance FSWs and MTSWs. FSWs reported lower average monthly income (53% reported earnings of Baht 10-20,000 per month) from sex work compared to MTSWs (58% reported earnings of Baht 20-50,000). This differs with Nemoto et al. (2012, p. 217) who reported that *kathoeys* (male-to-female transgender) sex workers (KSW) have much lower monthly income than FSW in Bangkok.

Table 1
Sex workers' demographic and working profile

	Female Sex Workers	Male and Transgender Sex Workers
Bachelor's degree (%)	8	34
Single (%)	68	92
Having children (%)	39	8
Median number of clients per week	4-5	10

As shown in Table 1, MTSWs have, on average, higher education than FSWs, with 34% attaining a Bachelor’s degree or above compared to only 8% for FSWs. MTSWs were also mostly single (92%) compared to venue-based FSWs (63.75%). Regarding the frequency of sex work, MTSWs reported a median of 10 clients per week (with maximum of 25), thereby making them about twice as active when compared to FSWs (median of 4 to 5 clients per week, with a maximum of 10 clients,

for venue-based FSW; and median of 5.5, with maximum of 20, for non-venue-based, freelance FSW). This is worrying given the fact that the HIV prevalence rate of MSM is 7% for Thailand and as high as 24.4% in Bangkok (UNAIDS, 2014, p. 67). Moreover, in Bangkok, Chiang Mai and Phuket, it has been estimated that HIV prevalence among transgender people was 10.4% in 2010, making them a particularly at-risk population (UNAIDS, 2014, p. 74).

Table 2
Sex workers’ risk profile

	Venue-based FSW (%)	Freelance FSW (%)	MTSW (%)	χ^2
Always use condom	75	85	82	ns
No drugs/alcohol	13	90	38	43.6**
HIV testing within 3 months	37.5	20	32	ns
Never had HIV testing	7.5	35	21	18.7**
% w.t.a no condom use				
Baht 10,000 offered	45	60	48	ns
Baht 2,000 offered	0	0	16	ns

Note. w.t.a, willing-to-accept. ns, not significant. ** $p < 0.01$.

When considering the risk profile of SWs, inconsistent condom use seems typical (see Table 2). Similar to the figures reported by Hsieh (2002) and Tareerat et al. (2010), about 75% of the surveyed FSWs in venue-based establishments reported consistent condom use in our sample, which was somewhat less than that for non-venue-based FSWs and MTSW (85% and 82% respectively). Again, this is similar to a report by the National AIDS Prevention and Alleviation Committee (2010, p. 91), which found that MSM and transgender SWs in Thailand reported condom use with

customers at 87.6% and 79.5% respectively. However, the same report also mentioned that MSM condom use during last episode of anal sex was only 21.7%.

SWs were also asked whether they were willing to accept monetary compensation for unprotected sex. Buckingham et al. (2005, p. 643), for example, found that 13% of FSW in brothel-based FSW in Thailand had asked for monetary compensation for vaginal sex without a condom. Nemoto et al. (2013, p. 616) also reported that 86% of Thai FSWs said they would engage in unsafe sex for extra money. In our survey, about half of

FSWs were willing to engage in unprotected sex in exchange for a monetary offer of Baht 10,000. When monetary compensation offered was less than Baht 5,000, all FSWs in our survey rejected unprotected sex for this amount. However, some MTSWs (16%) were still willing to accept unprotected sex for as low as Baht 2,000. This again illustrates the risky nature of MSM, which is worrying given that unprotected sex is particularly more risky for this group, especially when anal intercourse is involved (Baggaley et al., 2010).

A majority of venue-based FSWs reported working under the influence of alcohol and/or drugs. Freelance FSWs, on the other hand, remained mostly free from substance use perhaps because they lacked the physical security provided by venue-based sex establishments. Furthermore, substance use by some MTSWs was common at times to enhance sexual appetite/performance (Van Griensven, et al., 2010).

Despite the policy in many venue-based sex establishments for SWs to have testing every 3 months, HIV testing was found to be irregular with only 37% venue-based FSWs having tested in the past 3 months, and 7.5% having never tested at all. Also alarming is that 35% of freelance FSWs and 21% of MTSWs reported to never having tested for HIV. In Thailand, as in a large number of countries, dedicated programmes consisting of access to some form of HIV prevention services including HIV testing and condoms mainly reach FSWs, while other Key Affected Populations (KAPS) including MTSWs have been generally

ignored. Stigmatisation remains a key barrier to slowing the HIV epidemic and providing proper treatment, and as a result, despite increased efforts to reach these high-risk groups, HIV testing among transgender and other MSM remains somewhat low and many lack a comprehensive knowledge about HIV (National AIDS Prevention and Alleviation Committee, 2010; Nemoto et al., 2012). Detels (2004, p. 3) for example argues that a majority of HIV-infected people in Asia do not know that they are infected, and they continue to infect others. Many do not like to be tested because the mere act of being tested identifies them as being socially “undesirable” and also puts them at risk for being discovered to be infected, which may cause them to be isolated from their communities and even rejected by their families.

Also included in our survey are clients in Bangkok and Phuket. Their average age was 31 years (with standard deviation of 7 years), with more than a quarter having tertiary education. Meanwhile, about 87% were not married. About 40% often visited the commercial sex market (at least once a month) and 60% reported being under the influence of alcohol and/or drugs during their visits. A staggering 30% stated they have had unprotected sex at least once. Although this study could not directly link substance use with unprotected sex, its high level of use is a reason for concern given that alcohol and drugs may affect proper judgment which may lead to increased risky behaviour.

A staggering 30% of the clients surveyed never had HIV testing. 68% reported that they would always use a condom even with a regular partner, and this was somewhat higher at 78% for MSM clients, perhaps demonstrating the increased fear of risk of HIV infection. The findings of our survey are comparable with that reported in Chemnasiri et al. (2010), where among 827 sexually active young MSM surveyed in Bangkok, Chiang Mai and Phuket, 52.3% reported recent inconsistent condom use, but notably, MSWs were most prepared to use condoms with clients.

CONCLUSION

Under conditions of perfect information with risk-averse and rational people, every HIV-negative person should avoid unprotected sex with a HIV-positive partner. However, the reality is much more complex and research evidence over the past 25 years finds that there is no one particular factor for unsafe sex behaviour. Moreover, perfect information in which everyone knows the HIV status of potential partners is unrealistic. Rather, the HIV status (if and) when known is not commonly shared between SWs and their clients. The commercial sex market is characterised by imperfect information, as well as risk-takers and non-truth-tellers. This paper employs standard game-theoretical modelling under incomplete information, while considering the possibility of signalling, to show how outcomes may depend on belief and perceptions about a partner’s HIV status, as well as on individual’s risk taking attitude

which would generally affect judgment for averting risk. More specifically, because clients do not know the health status of a SW, the best (s)he can do is to look for a signal that may reveal the SW’s status as uninfected clients try to ‘match’ with uninfected SWs. Since many Thai venue-based sex establishments require SWs to declare the results of HIV tests every 3 months, this study considers this policy as a potential signal about the “quality” of SWs and analyses various possible equilibria using the signalling game-theoretical model under incomplete information. Equilibrium depends on the validity of the signal, or more specifically in the context of this study, whether the testing policy in the venue-based sex establishments is strictly enforced, as well as the risk attitude of clients (i.e., whether they are risk-averse or risk-lovers). The survey conducted for this study revealed that HIV testing of venue-based SWs was not strictly enforced with only 37.5% having tested in the past 3 months. Moreover, only 75% of SWs used condoms consistently with their clients and about half would accept some monetary compensation for unprotected sex. With only weak signals and incomplete information available in the commercial sex market, a pooling equilibrium in which all types send a message of “no HIV infection” (i.e., SWs in venue-based establishments) would seem the more likely, and in which case, protected sex (*PS*) should be chosen. On the other hand, although protected sex in non-venue-based sex markets would be rational too, differences in risk-taking

attitude could result in unsafe or risky sex, and hence lead to infection. Of particular concern highlighted by our survey is that MTSWs and MSM represent a higher-risk vulnerable group exposed to HIV and AIDS. Be as it may, because of the many uncertainties inherent in the commercial sex market, there is an urgent need to emphasis prevention services, especially endorsing 100% condom use, if the UN mandate of eliminating new HIV infections and ending the AIDS epidemic by 2030 is to be fulfilled.

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Impact of Loan Portfolio Diversification and Income Diversification on Interest Margin in ASEAN Banking Market

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ABSTRACT

This study aims to investigate the impact of loan portfolio diversification and income diversification in ASEAN-4 banking markets. Loan portfolio diversification consists of credit to different sectors and different types of credit offered to customers. This study applied a model of bank as a dealer, initiated by Ho and Saunders (1981), and the latest developed by Maudos and Solis (2009). We employed static and also dynamic panel data using System Generalised Method of Moment (System GMM) to estimate the model. The results show a decreasing trend in banks' net interest margins, which is consistent with the increase in selling of bank non-traditional products in this market that indicates the existence of cross-subsidy in revenue from non-traditional to traditional banking products. In addition, less diversification in credit sectors positively and significantly affects net interest margin. Furthermore, we also found that lesser competition, increases interest margin. However, foreign bank penetration will end up with a significant decrease in NIM.

Keywords: ASEAN; Foreign Bank Penetration; Market Power; Loan Portfolio Diversification; Net Interest Margin; Non-Interest Income Diversification

INTRODUCTION

A seminal paper by Ho and Saunders (1981), which analytically and empirically analysed the determinant factors of net-interest margin (NIM), has become a reference paper for many scholars. Their findings showed that the intermediation spread is determined by four factors, i.e: level of risk aversion of bank management, level of market competition of the banking system, average amount of the transaction value conducted by the bank and level of interest rate risk.

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Extension of this model has been conducted by several researchers. Allen (1988), for example, considered the different types of loan portfolio in the original model, whilst money market risk as a change of interest rate risk was used by Mc Shane and Sharpe (1985); credit risk and interest rate risk are added by Angbazo (1997). Maudos and Guevara, (2004) then proposed operating costs as one of determinants of interest margin, while Valverde and Fernandez (2007) found a significant effect of non-traditional banking products in European zone when this variable was included in the model. Furthermore, the basic model from Ho and Saunders (1981) and its expansions have also been applied by several researchers to estimate empirical data from banking system in Southeast Asia (Doliente, 2003), Latin America (Brock & Suarez, 2000; Martinez-Peria & Mody, 2004; Gelos, 2006), Europe and America (Saunders & Schumacher, 2000; Claeys & Vennet, 2008).

In the recent years, non-interest income from a wider range of non-traditional banking activities emerged as an important source of revenue (Valverde & Fernandez, 2007). This type of revenue has been subsidising the declining of interest margin due to the pressure of competition and deregulations in banking. Changes in income structure, as an effect of shift into non-interest income activities and its influence to intermediation margin in European banking, were also examined by Marcieca et al. (2007) and Lepetit et al. (2008). In addition, Maudos and Solis (2009) applied an integrated model

of NIM by combining several factors which concurrently included operating cost and diversification or specialisation. Meanwhile, diversification of loan portfolios may reduce interest rate spread when cross-elasticities between products are considered (Allen, 1998). However, when McShane and Sharpe (1985) applied Allen's model, the opposite result was obtained. Some literatures have focused on the impacts of loan portfolios diversification on risk-return profile (see Acharya et al., 2006; Berger et al. (2010a, b).

This study uses an integrative model adopted from previous researchers to examine the determinants of bank margins in the banking system of ASEAN-4 (Indonesia, Malaysia, Thailand and Vietnam) since these countries have experienced some stages of banking deregulation and consolidation after or before the global financial crisis in 2008. In this context, the research focuses on the effects of diversification undertaken by banks in each country. There are few studies dedicated on analysing determinants of net interest margin in ASEAN banking. For example, Doliente (2003) applied two-step regression to analyse the basic factors explaining NIM in the region. Limited articles focus on the impacts of diversification of non-interest income and diversification of loan portfolios in the banking system of developed countries (Valverde & Fernandez, 2007; Lapetit et al., 2008; Maudos & Solis, 2009). In contrast to previous studies that emphasised more on diversification of non-interest income, in this study, we examine the impacts of credit diversification on the industrial

sector and the diversification to the type of loans granted by banks. It is expected that the findings of this research will enrich the literature related to the link between diversification on credit portfolios on sectors and types and bank intermediation margin, especially in ASEAN.

The impact of regulations and consolidation carried out by each country to bank margins vary in every country. In general, in the last seven years (2006-2012) NIM in ASEAN-4 tends to decrease. The decline is in line with the trend of increasing the portion of non-interest income. Meanwhile, the market power of bank is measured by Lerner Index has a tendency to increase, aligned with the incremental of foreign banking penetration in this region. The question is whether declining in intermediation margin can be interpreted as a result of diversification of banking products and credit? Therefore, it is interesting to further study factors influencing the level of margin apart from diversification, and if there is any impact from the decrease in degree of competition as stated in the basic model, as well as the impact of foreign bank penetration on interest margin.

Our findings suggest that diversification of non-traditional products has been applied by banks to subsidise their decreasing revenue in traditional loan products. However, less diversified banks in credit portfolio sectors enjoy higher margins because of their high skills in handling these sectors. Additionally, banks with higher market power also charge higher rate, while

penetration of foreign banks contributes in lowering intermediation margin in host country. Other factors that generally determine interest margin have expected signs, as discussed in previous literature. Credit risk, market risk, operational expenses and size of loan and liquidity have positive impacts, whereas a negative relationship is obtained for size of assets and efficiency.

The remainder of the paper is as follow. Section 2 presents a brief literature on the impact of diversification on bank's net interest margin and its determinants. Section 3 provides the research methodology, while results of the study are presented in Section 4. Lastly, conclusion of the paper in given Section 5.

LITERATURE REVIEW

Ho and Saunders (1981) found market competition affected interest margin in the American banking market. Even in a highly competitive market, interest margins will exist as long as there is uncertainty of the arrival of deposits to bank and credit demand from the debtor. Other factors influencing the interest margin are the level of risk aversion, average size of transactions and risk of interest rate. Dealership framework models of Ho and Saunders consider homogeneous portfolio of assets. Allen (1988) then considers the presence of the diversity of the loan portfolio of banks. The results showed that interest margin would decline when cross elasticity of demand for banking products were considered in the model. This study became the basis of some researchers linking diversification

factor that affects intermediation margin. In line with this, Mc Shane and Sharpe (1985) empirically examined the determinants of bank interest margin using Australian commercial bank data. Their study showed a non-linear relationship between interest margins with market power, the level of risk aversion and interest rate uncertainty. In addition, when banks diversified their credit, shifting from selling commercial loans to individual loans, it resulted in an increase in interest margin.

Valverde and Fernandes (2007) made a new contribution to the literature on the relationship between bank non-interest income products and interest margin. They took into account multi-products concepts from the bank that generates interest income and non-interest income, and found a negative and significant relationship between revenue diversification and bank margin. Diversifications of non-interest income products in European banking have increased revenues and heightened the market power of banks. Raising revenue from business shifting to non-traditional products has been conducted to cover the margin decline in interest income due to the intense competition in the traditional markets of credit and deposits. Consistence with this finding, Maudos and Solis (2009) also found cross subsidise strategy of revenues from non-traditional to traditional products in Mexico banking system, even though the impact is economically and relatively low. In line with this, Lepetit et al. (2008) also recorded that the shift in the bank's business in non-traditional products

that generate commissions and fees had reduced interest margins and credit spreads in the European banking.

In his study, Angbazo (1997) added credit risk factors, including the risk of market interest rates and off-balance sheet transactions into factors that affect net interest margin in the model. Using the American banking data in 1989 to 1993, Angbazo recorded that NIM was positively associated with the risk premium on loans and interest rates. Rising credit risk and market risk forcing banks to raise loan interest rates to compensate for losses due to non-performing loans. A study of Latin American data by Brock and Suarez (2000) shows similar results where credit risk raises the spreads even though these effects are not the same across the countries. These findings are also support by Maudos and Solis, (2009) and Maudos and de Guevara (2004), who analysed the banking system in Mexico and European Union, respectively. However, the different results obtained by Martinez-Peria and Mody (2004) in their study on Latin American banks in 1994-1999 did not show significant results on the influence of non-performing loans to the interest margin.

A declining trend in the bank interest margins in five European countries (Germany, France, Britain, Italy and Espanola) in the period of 1993-2000 motivated Maudos and De Guevara (2004) to find out factors affecting it. They took into account operating cost as one of the factors that determined the volatility in interest margin apart from the level of competition,

interest rate risk and credit risk. When the bank has a high cost in its operation, logically bank needs a high margin of interest rates to retain the profit. The study shows that the decrease in operating costs is an important factor that leads to declining margins. Consistent with these findings, Brock and Rojas (2000) also noted that the cost of banking operations, i.e. cash reserve at the central bank, was an important factor in determining the interest margin in seven Latin American countries in the mid-1990s. Furthermore, Dick (1999) also viewed significant impact on the operating costs of banking in Central American countries.

Saunders and Schumacher (2000) found that intermediation margins were affected by the level of capital, market structure and interest rate risk on banking in six developed countries in Europe and America over the period of 1988-1995. The same finding and bank's capital level are also factors affecting the level of margin in Latin American (Brock & Rojas, 2000). Additionally, Gelos (2006) examined more comprehensive determinants of the interest margin covering eighty-five countries including banks in Latin American over the period of 1999-2002. He recorded that interest margin in Latin American countries was relatively high (around 9%) compared to other countries and other regions. The high interest margin in the region was due to

the high bank interest rates, higher reserves at the central bank compared with other countries, as well as the inefficiency of the operating costs.

RESEARCH METHODOLOGY

The Empirical Model

Ho and Saunders (1981) viewed bank as a risk-averse dealer in the credit markets that act as intermediaries between depositors and borrowers. They assumed no fee for processing credits and deposits. Other assumption is single time horizon of the period, while the arrival of deposit and demand for loan is random. At the end of the period, the model will maximise welfare (expected utility) of the banks. Additionally, the risks volatility in interest rates and uncertainty on return of credits are among the risks faced by the bank. This study adopts integrated determinants of net interest margins model developed by Maudos and Solis (2009). Some factors are added into the basic models such as diversification of credit products from Allen (1988), diversification of non-interest income products (Valverde & Fernandez, 2007), operating costs (Maudos & de Guevara, 2004), credit risk (Angbazo, 1997). Following Martinez-Peria and Mody (2004), we also added foreign bank penetration in the host country as one of determinants so that our empirical model of NIM to be estimated is as follows:

$$\begin{aligned}
 NIM_{i,j,t} = & \alpha + \beta_1 LFOC_{i,j,t} + \beta_2 ReFOC_{i,j,t} + \beta_3 ForP_{j,t} + \sum_{n=1}^M \varphi_n PS_{i,j,t} + \sum_{n=1}^N \epsilon_n BS_{i,j,t} \\
 & + \sum_{k=1}^K \theta_k ME_{j,t} + \sum_{k=1}^{\epsilon} \zeta_c D_c + \varepsilon_{i,j,t} \quad (1)
 \end{aligned}$$

where $t=1, \dots, T$ is the number of period, $i=1, \dots, I$, I is the total number of bank, $j=1, \dots, J$, J is the number of country. Thus, from the subscript, i represents individual bank in country j at time, t . NIM is defined as the difference between interest income and interest expenses divided by total assets. LFOC is a measure of focus or diversification of the loan portfolio of banks, while ReFOC is level measurement focus or diversification of banks in terms of sales of non-interest income products. In order to measure whether banks focus or diversify in one field then we use Herfindahl Hirschman Index (HHI), as used by Acharya et al. (2006) and Berger et al (2010a, 2010b). Moreover, credit diversification will be divided into two categories, namely, credit-sectoral (S-FOC) and type (T-FOC). Type of credits is divided into consumption, working capital, investments and exports. Focus or diversification of non-interest income is also categorised into two categories. First, the diversification of interest income and non-interest income which is referred as (R-FOC), where the diversification within non-interest income consists of fees / commissions, trading and other (N-FOC), as applied by Marcieca et al. (2007).

The effect of foreign bank penetration (ForP) is measured by the percentage of foreign banking assets in the host country compared to total assets of the banking system in host country. The definition of a foreign bank in this study corresponds to the categories used by World Bank. Bank is

classified as a foreign company if the portion of foreign ownership exceeds 50%.

PS is a vector for the variable *pure spread* consisting of the market structure (proxy by bank market power) where bank operates, interest rate risk, bank management risk aversion, and the average amount of bank transaction. We used Lerner Index (LI) as a proxy measure of market power or level of competition. It is measured by a ratio between differences in the price of total assets (revenue from interest income + non-interest income) and marginal cost of total asset (cost of labour, cost of loanable fund and operational and administrative cost) over price of total assets. The marginal cost of total asset is estimated using translog total cost function (for more details, see Berger et al, 2009; Maudos & Solis, 2009). Interest rate risk is measured by standard deviation of monthly interbank market rate (Maudos & Solis, 2009; Angbazo, 1997). Capital level ($EQUITY = TE / TA$) is used to measure the level of risk aversion (Mc Shane & Sharpe, 1985; Maudos & de Guevara, 2004). The proxies for size of the bank transactions are the portfolio credit (\ln Loans) and \ln total assets (Maudos & Guevara, 2004; Maudos & Solis, 2009).

BS is a vector for individual *bank specific* characters consisting efficiency ratio, liquidity risk level, operating costs, credit risk and variable that measures non-interest income. Efficiency ratio ($EFF = \text{Total Cost} / \text{Total Revenue}$) is used to capture whether the bank management has the

ability to manage lower cost to produce higher yield (Maudos & Guevara, 2004; Maudos & Solis, 2009). Liquidity Risk measures opportunity cost of bank hold reserve funds and other cash equivalent in term of total bank assets (Angbazo, 1997; Valverde & Fernandez, 2007; Maudos & Solis, 2009). Following Angbazo (1997), credit risk is measured by the ratio of loan loss provision to total loans. Operating costs is represented by the ratio of operating expenses over total assets (Maudos & de Guevara, 2004). Furthermore, we include specialisation or diversification variables net non-interest income (NNON) adopted from Maudos dan Solis (2009) and Valverde and Fernandez (2007). NNON is the ratio of non-interest income minus non-interest expense over total assets. We also decomposed the variable of non-interest income into income from commission and fee, as well as income from trading. Those two variables are measured in percentage of total assets.

Macroeconomic factors (ME) are inserted in the model to capture the effect of external macroeconomic condition in each country that will affect the volatility of interest margin (Demirguc-Kunt & Huizinga, 1999; Claeys & Vennet, 2008). They are economic growth (GDP growth), inflation rates, depreciation of currency, as well as the growth rate of banking assets in term of capital markets. While D is a dummy, there are several dummies, firstly, bank ownership dummy (government and private, local and foreign bank). Secondly we also included host country dummy

(Indonesia, Malaysia, Thailand and the Philippines).

DATA

Our sample comprised of unbalanced panel data consisting of 74 banks in Indonesia, 27 banks in Malaysia, 20 Bank in Thailand and 18 banks in the Philippines for period between 2006 and 2012. The financial data were collected from Bureau Van Dijk's Bank Scope Data Base, loan portfolio by sectors and the type of credits was taken from the bank's financial reports downloaded from their website in respective country. The analysis was conducted based on individual bank annual data. We used a single-stage methodology to estimate the model following Maudos and de Guevara (2004) and Maudos and Solis (2009). As our time series observation was only for seven years (2006-2012), it is not possible to apply two-stage methodology used by Ho and Saunders (1981) and Saunders and Schumacher (2000).

The model in equation (1) is estimated with random effect, because country specific variables are included in the model as supported by Demirguc-Kunt et al. (2003). Furthermore, a dynamic approach was also applied in the model to accommodate stochastic arrival of deposit and demand for loan and non-traditional activities across the period (Valverde & Fernandez, 2007; Maudos & Solis, 2009). Maximisation wealth of bank considering beginning and ending period information, so it was considered that the current value of margin

might be affected by the previous value. The methodology used to estimate the dynamic model is system GMM, as proposed by Arrelano and Bover (1995) and Blundell and Bond (1998). This method estimates the regression in differences and jointly with the regression in the levels. To minimise endogeneity problem of explanatory variables, lagged levels and lagged differences of explanatory variables are used as instruments. In this process, we use the one-step GMM estimator with asymptotic standard errors robust to heteroskedasticity. As proposed by Arrelano and Bond (1991),

we tested the validity of instruments using Sargan test and validity of assumption that no serial correlation on the error term. The results presented in Table 2 have meet this test requirements.

RESULTS AND ANALYSIS

Descriptive Statistics

Table 1 shows the descriptive statistics of our data. The average NIM is relatively higher (3.45%) compared to the bank interest margins in developed countries. However, there is a declining trend in this

Table 1
Descriptive Statistics

Variables	Mean	Std. Dev	Min	Max
Net Interest Margin (NIM) %	3.451	2.168	-2.280	12.580
Lerner Index (LI)	0.206	0.280	-1.733	0.839
NNON	-0.020	0.021	-0.213	0.084
SFOC	0.424	0.248	0.144	1.000
TFOC	0.609	0.230	0.252	1.000
RFOC	0.743	0.139	0.500	1.000
NFOC	0.628	0.210	0.334	1.000
ForP (Foreign Penetration)	0.237	0.089	0.082	0.410
Ln Assets	19.003	4.938	11.405	33.303
Ln Loans	17.819	5.425	6.558	31.205
EQUITY	0.148	0.126	-0.069	0.989
EFFICIENCY	0.831	0.232	0.124	2.505
LIQUIDITY	0.067	0.098	0.010	0.700
CRISK	0.010	0.021	0.001	0.298
MRISK	0.007	0.007	0.000	0.023
OPEX (Operating Cost)	0.040	0.025	0.007	0.294
FEE & COMMISSION	0.006	0.006	0.000	0.066
TRADING	0.009	0.013	0.000	0.084
DEPCURR	-0.018	0.084	-0.172	0.151
GDP GROWTH (%)	5.262	2.134	-2.330	7.811
INFLATION (%)	4.529	2.731	0.390	11.060
TA/MCAP Growth	0.847	2.731	-4.140	9.561

margin, i.e. from 3.65% in the year 2006 to 3.19% in the year 2012. Market structure measured by Lerner Index had average number 0.206, which meant that the market in this region was quite competitive, even though the trend in this figure increased (all trends are not shown in the table). The raise of market power in this region might be caused by mergers acquisition and also banking consolidation policy from each central bank. Measurement of diversification of revenue (RFOC) is 0.743. It seems that interest revenue from traditional products are still dominance, as supported by NNON that has negative sign. However, from the data series, there is an increasing trend in revenue from the non-traditional products. Diversification on credit to certain sectors (SFOC) is 0.424. It indicates banks in this region have already diversified its portfolio into sectors moderately; however, in term of diversification in type (TFOC), banks still focus on the type of products that they have more expertise. Other main variable is foreign bank penetration. The average number is 0.237 although the share of assets of bank owned by foreign banks increased over the periods of observation.

Analysis and Discussion

Table 2 shows the determinants of net interest margin using static and dynamic panel data. There are 6 columns of estimation; the first three columns are the results of static and three other columns are for dynamic estimation. Columns 1 and 4 are the results of a modified regression model from

previous studies in which all diversification factors and foreign bank penetration (For P) are included in the model. Influence of foreign bank penetration is then substituted by foreign ownership factor in column 2 and column 4. Following Maudos and Solis (2009), we included disaggregate factor of non-interest income in column 3 and column 6, namely, fee and commission income and income from trading.

Results presented in Table 2 show that market power (indicated by Lerner Index) has a positive and significant impact on interest margins. It shows that in less competitive markets, banks earn higher intermediation margin. Mergers and acquisitions, as a result of bank consolidation in this region, might cause banks to be concentrated and decrease the competitive pressures. Consequently, some banks enjoy market dominance by charging higher interest rate on loans. This result is in line with the findings obtained Maudos and de Guevara (2004) in the banking system in developed European countries, Maudos and Solis, (2009) in the Mexican banking, and Claeys and Venet (2008) in the banking system in Central and East Europe.

The effect of income diversification (NNON) is negative but strongly affects interest margin. This implies that shifting on non-interest income contributes to the increase of total income of the bank, and has subsidised to declining interest margin from selling traditional products. This cross-subsidy strategy can also be viewed as a marketing strategy to retain the old debtors or to attract new debtors by offering loans

at lower interest rate, but charging higher fees to other integrated credit products such as cash management, trade finance, bank guarantees, etc. Furthermore, disaggregate variables of non-interest income such as fee and commission supports this finding in shorter equilibrium (column 6). However, trading revenue associated with an increase in margin, this might be due to the lack of expertise of some banks in trading activities, hence, loss in trading has been compensated with higher margin (Lepetit et al. 2008). Other measurements of revenue diversifications R-FOC and NFOC support our finding. RFOC variables positively and significantly associated with interest margins (NIM), indicating that the concentration of interest income or non-interest income revenues resulted in an increase in NIM. This implies that diversification into non-traditional banking products that generate non-interest income would decrease bank intermediation margins (Valverde & Fernandez, 2007; Maudos & Solis, 2009). Additionally, NFOC also shows a positive and significant relationship to the interest margin, which implies that less diversified of non-interest income in one of the products (either fee and commission or trading) have an impact on increasing bank margins.

Diversification credit in sector (SFOC) consistently has a positive relationship with NIM. It shows that diversified bank in portfolio sectors results in lower interest margins; conversely focused bank will charge higher interest. This indicates that the banking sector in this region prefer to channel its portfolio to certain industrial

sectors where they have an expertise in that sector. As a result, competition in a particular sectors becomes lower, therefore specialised banks could freely charge higher interest rate and consequently higher interest margin (Dell'Araccia & Marquez, 2005). This argument is also consistent with the hypothesis lending relationship by Petersen and Rajan (1994), where bank charges higher interest rates to borrowers because of long-time relationship and high switching costs to start a new relationship with other bank. This finding is consistent with the findings of Acharya et al. (2006) who found that the credit portfolio diversification to many sectors is unprofitable because there is diseconomy of scope arising from lack of expertise and monitoring when banks expand into new sectors. Different results were obtained by Mc Shane and Sharpe (1985) who recorded an increase in NIM in Australia when banks diversified their portfolios.

Results also showed that the higher foreign penetration in controlling banking assets in the host country, the lower the interest margin earns by banks would be. This suggests that expansion of foreign banks in the regional ASEAN-4 has a positive impact on the reduction in intermediation costs. Similar to our finding, Barajas et al. (2000) documented that foreign banking penetration in Colombia contributed positively in decreasing interest margin. While the cross-country study by Claessens et al. (1998) also showed the significant role of foreign penetration in lowering the cost of intermediation in developing

countries, which is an opposite result when they operated in industrial countries. The effect of foreign bank ownership shows a negative relationship with NIM in long-time equilibrium and flipping the relationship in short-term equilibrium, although it is not significant.

Table 2
Determinants of Net Interest Margins (Static and Dynamic Model)

Variable	Static Model			Dynamic Model		
	1	2	3	4	5	6
NIM(-1)				0.026 (0.817)	0.029 (0.798)	0.041 (0.744)
Lerner Index (LI)	0.011*** (0.000)	0.011*** (0.000)	0.002 (0.609)	0.003 (0.784)	0.002 (0.844)	0.004 (0.740)
NNON	-0.618*** (0.000)	-0.636*** (0.000)		-0.677*** (0.002)	-0.738*** (0.000)	
- FEE & COMMISSION			0.050 (0.565)			-0.766* (0.079)
- TRADING			-0.024 (0.558)			0.355* (0.083)
SFOC	0.006** (0.027)	0.005** (0.047)	0.005 (0.146)	0.031* (0.056)	0.031* (0.081)	0.026 (0.226)
TFOC	-0.001 (0.660)	-0.001 (0.765)	0.001 (0.826)	-0.014 (0.238)	-0.014 (0.261)	-0.030 (0.171)
RFOC	0.013*** (0.005)	0.010** (0.042)	0.028*** (0.000)	0.006 (0.603)	0.004 (0.769)	0.054* (0.071)
NFOC	0.006** (0.026)	0.006** (0.033)	0.003 (0.305)	0.002 (0.986)	0.001 (0.944)	-0.015 (0.351)
ForP (Foreign Penetration)	-0.040*** (0.000)		-0.206*** (0.000)	-0.019 (0.687)		-0.350* (0.089)
Foreign OWN		-0.001 (0.705)			0.001 (0.943)	
Ln Assets	-0.001** (0.040)	-0.001** (0.026)	-0.001 (0.426)	-0.002 (0.200)	-0.003 (0.194)	-0.005 (0.240)
Ln Loans	0.002** (0.020)	0.002*** (0.009)	0.001 (0.101)	0.001 (0.665)	0.001 (0.624)	0.006 (0.121)
EQUITY	0.008 (0.208)	0.011* (0.095)	0.012 (0.130)	-0.001 (0.982)	-0.001 (0.986)	0.030 (0.379)
EFFICIENCY	-0.054*** (0.000)	-0.053*** (0.000)	-0.094*** (0.000)	-0.089*** (0.006)	-0.091*** (0.004)	-0.132* (0.072)
LIQUIDITY	-0.008 (0.239)	-0.006 (0.413)	-0.004 (0.611)	0.004 (0.899)	0.004 (0.888)	-0.060 (0.245)
CRISK	0.210*** (0.000)	0.220*** (0.000)	-0.196*** (0.000)	0.254 (0.141)	0.276* (0.067)	-1.413** (0.022)
MRISK	-0.203 (0.299)	0.276* (0.064)	-0.288 (0.210)	-0.531 (0.483)	-0.219 (0.583)	-1.098 (0.258)

Table 2
Determinants of Net Interest Margins (Static and Dynamic Model) (continue)

Variable	Static Model			Dynamic Model		
	1	2	3	4	5	6
OPEX (Operating Cost)	-0.025 (0.517)	-0.055 (0.145)	0.345*** (0.000)	0.017 (0.850)	-0.019 (0.817)	0.559*** (0.000)
ForP*Efficiency			0.192*** (0.000)			0.284 (0.226)
CRISK*MRISK			23.79*** (0.000)			101.73 (0.108)
Constanta	0.063*** (0.000)	0.046*** (0.000)	0.081*** (0.000)	0.136*** (0.001)	0.131*** (0.008)	0.107 (0.130)
R Square	0.731	0.723	0.617			
Sargan Test				26.54	26.49	16.44
AR (1)				-2.272*	-2.061*	-1.957
AR (2)				0.894	-1.109	-1.041

*significant at 1%, **significant at 5%, significant at 10%. Value in parentheses is t-probability, based on robust standard error. System GMM results are one-step estimate. Limited space macro-economics, country effects and time effects variable are not included in this table (available upon request).

Size of bank has a significant negative correlation with the interest margin. This illustrates large banks with economics of scale that tend to offer lower interest rates to debtors. Accordingly, banks will be able to maintain its market power and increase their market share. This finding is consistent with the result obtained by Demirguc-Kunt et al. (2003). Positive coefficient on loan implies that the greater exposure portfolio, the higher the risk will be and the more expensive the cost to acquire and manage the portfolio, as a result will set higher premium spread. This result is consistent with the findings of Maudos and Solis (2009) on the banks of Mexico, Claeyns and Vennet (2008) in banking accession countries (mostly in the Eastern Europe). However, different conditions emerge

in main banking in Western Europe (Maudos & de Guevara, 2004; Valverde & Fernandez, 2007).

As predicted by the model, variable risk aversion (Equity) has a positive relationship with the margin. The high level of expensive capital owned by bank signals trustworthy and lower bankruptcy risk (see Saunders & Schumacher, 2000; Valverde & Fernandez, 2007; Maudos & Solis, 2009). Management quality measured by the efficiency ratio has a significant negative relationship with interest margins. Non-efficient banks earn low yield assets but pay higher interest to depositor. The positive coefficient on operating cost shows us that banks in this region transfer their operating

cost to their customers by charging them higher margin (Maudos & de Guevara, 2004). Liquidity variable consistently has a negative relationship with interest margins although it is not significant.

Credit risk and market risk factors have positive and significant association with interest margin. Banks will set higher margin to compensate the risk involved in their loan portfolio and uncertainty in interest rates in the market. These results are consistent with the findings in some previous studies (see Ho & Saunders, 1981; Angbazo, 1997; Brock & Suarez, 2000; Maudos & Solis, 2009). Ensuring a smooth process of recording loan loss provisioning might cause the presence of a negative relationship between credit risk and margins. Furthermore, the interaction between these two risk components has a positive and significant relationship with NIM. Consistent with the sign of two coefficients variables, it implies that banks anticipate raising probability loan defaults and higher volatility of market interest rates by charging higher margin.

Macroeconomics factors affect NIM heterogeneously. Economic growth provides extensive investment opportunities in the business. Align with the growth of economic; bank could also increase its intermediation margin (Claessens, Demirguc-Kunt, & Huizinga, 1998). In the short-time period (dynamic model), inflation affect margin negatively (Denizer, 2000), whereas depreciation of currency forces banks to increase their margin. In addition, the variable that measures banking growth

in relation to growth of capital market shows negative relationship with NIM. It suggests increasing financing from banks will tighten competition in the market, consequently lowering bank margin (Demirguc-Kunt & Huizinga, 1999).

CONCLUSION

Relatively high growth of economic and business in the ASEAN region is characterised by an increase in selling non-traditional banking products that generate non-interest income. This condition is also supported by consolidation of the banking and the rise of foreign bank penetration in the host country. Along with this, there is a declining trend in intermediation margins. This phenomenon is the reason for the importance of knowing the determinant factors causing the decline in the interest margin in ASEAN-4 banking system over the period of 2006-2012.

In comparison to other papers that analysed determinants of NIM, the research contributes to literature on the the impacts of revenue diversification and credit diversification simultaneously on intermediation margins. In this research, the integrated model of NIM from Maudos dan Solis (2009) was adopted by linking credit diversification (Acharya et al., 2006), diversification of non-interest income (Valverde & Fernandez, 2007), as well as foreign banks penetration (Claessens et al., 1998). The model is estimated using random effect panel data regression and system GMM estimator.

The findings of this study show that decreasing interest margin is determined by diversification of non-interest income products, foreign bank penetration, as well as size of banks and efficiency. Non-traditional products become important sources of revenue, especially ones that generate fees and commissions because they have already subsidised decreasing in revenue on traditional products. Foreign bank expansion in host country provides positive impact in lowering margin. Efficiencies, technology advantages and motivation to increase market share might drive foreign banks to cut the spread, followed by local banks, in order to stay in market. Larger bank, due to its scope of economic, could charge lower interest rate. Meanwhile, banks do not pass through their inefficiencies in operating cost to the customers. Inefficient banks do not enjoy higher margin; instead they are penalised with a decline in margin.

Decrease in intermediation margins is countered off by several factors such as market power, credit sector diversification, size of loan, credit risk and market risk. There is evidence that banks in this region exploit their market power by charging higher interest margin. Similarly, when they have high capability in certain sectors, so less diversified in loan portfolio is a choice to obtain higher margin. Additionally, banks with greater size of loan in their portfolio, higher operating cost and higher volatility of credit risks and interest rate risks protect themselves by charging higher intermediation margin.

As a financial intermediary, bank has a role in improving social welfare. In order to achieve this function, the banking industry needs to reduce the intermediation margins. Declining margins mean reduction social cost from intermediation process. In line with this, the implications of our study for banking regulator are as follows: first, setting prudent regulations on expansion of non-interest income products because risk involved in these products is high, especially for trading activities. Second, it needs policies that encourage increased banking competition. Third, publish prudent regulations that support the penetration of foreign banks; therefore, they provide spillover effect in decreasing margins. Fourth, encourage banks to manage their cost efficiency through set regulations so that they can enjoy the intermediation margins.

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Sectoral Impact of Bank Credit in Malaysia: ARDL Modelling Approach

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ABSTRACT

This study investigates the sectoral impact of bank credit on economic output by analysing the long- and short-run effects of bank credit on the output of five major economic sectors in Malaysia. The sectors are the agriculture, manufacturing, mining and quarrying, construction and services. It employed quarterly data from 1997Q1 to 2014Q4 and adopted the ARDL and ECM approaches. The results revealed that bank credit has uneven impact on the economic sectors, with significant effects, particularly in the short run on the mining and quarrying, and manufacturing sectors, but no effect on the agriculture sector. In contrast, bank credit is found to have larger long-run impact on output of the construction and services sectors compared to the short run. Hence, the results suggest the importance of considering the sectoral-specific characteristics in extending bank financing to ensure the effectiveness of financing in supporting the growth of the sector. As for the agriculture sector, concessionary financing is needed since it is shown that the sector is not adequately being served by the banking system.

Keywords: Financial Systems, ARDL, Bank Credit, Economic Sectors, Malaysia

INTRODUCTION

A stable and developed financial system is extremely important to enable it to play an effective role of allocating financial resources to the deserving economic units. Financial development involves improvement in the functions of the financial system including mobilising and pooling of

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savings, producing information needed to aid in investment decisions, monitoring of investments, facilitating trading and exchanging of goods and services, as well as diversifying and managing of risks. These specific functions of the financial system may influence the savings and investment decisions, affecting their efficiencies, and hence, contributing to better economic growth (Levine, 2004).

Bank credit is a significant source of funds to the economy, particularly the private sector enterprises and constitutes a substantial portion of the total financing to private sector, especially in developing countries. For instance, prior to the Asian financial crisis 1997/1998, the Malaysian financial system was characterised by the dominance of the banking sector and a less-developed capital market. Consequently, the private sector firms relied heavily on bank loans as their source of financing. In the post-crisis period, as a result of a series of financial restructuring programs, the Malaysian financial system became diversified and saw the emergence of deep and liquid debt market, which accounts for an increasing share of total corporate financing (Bank Negara Malaysia [BNM], 2011). This has resulted in a decline in bank credit as a source of corporate finance. The real economic sectors are expected to respond differently to this evolving trend in the financial system, especially in effort to reduce the dominance of the banking sector in financing the economy.

The aggregate approach in the finance-growth literature has limited ability to

provide a deeper understanding of the nexus between the financial and real sectors. On the contrary, the micro-based approach (industry and firm level analyses) explores the several potential channels through which finance influences growth. This could capture more specific aspects of the finance-growth relationship. Allen and Ndikumana (2000) highlighted that given the fact that it is difficult to observe the efficiency of new investments in the data on private credit, the true effects of finance on output can then be revealed by industry-specific information. Through this, possible impact patterns and degree of interaction between the financial sector and various segments of the real sector can be identified. The present study seeks to bridge this gap in the literature by undertaking empirical investigation on the differential impacts of bank credit on specific sectors of the Malaysian economy, namely, the agriculture, mining and quarrying, manufacturing, construction and service sectors.

LITERATURE REVIEW

In the specific context of Malaysia, Ang and Mckibbin (2007) explored the relationships between financial liberalisation, financial development and economic growth by utilising time series data over the 1960 to 2001 period. The results from the co-integration and causality tests suggested that financial liberalisation stimulated the development of the financial sector, and financial deepness and economic growth were found to have positive relationship. Similarly, Majid (2008) investigated the

relationships between financial development and economic growth in Malaysia in the post-1997 crisis period, i.e., from 1998 to 2006. By employing the ARDL approach and Granger causality test, the study revealed that there is a long-run relationship between financial depth and economic growth. By using a variety of financial development indicators, Dufrenot, Mignon, and Peguin-Feisolle (2010) revisited the evidence of co-integration between financial sector and the real economy in 80 countries. The results showed that financial development positively determined economic growth in industrialised countries in the 1980-2006 period. However, in developing countries, the effect of finance on economic growth was found to be negative. The negative results for the developing countries might be due to the blind implementation of financial liberalisation policies in the presence of managed exchange rate regimes, unstable prices and fiscal deficits.

The aggregate approach adopted in the above studies made a strong assumption regarding the impacts of financial development on the real economy; that financial development affects all sectors in the economy uniformly. This generalisation has important flaws since different economic sectors have unique financial requirements, thus responding differently towards sources of finance. This highlights that there is a need for industry level studies on finance and growth. Fafchamps and Schündeln (2013) tested whether firm expansion was affected by local financial development in Moroccan manufacturing enterprises from 1998 to

2003 and found that the availability of locally-sourced financing from the banking sector was strongly associated with faster growth for small and medium-size firms in potentially expanding sectors. Further evidence indicated that pre-existing firms needed credit to mobilise investment funds with the objective of reducing labour costs, indicating that financial intermediation led to adoption of capital intensive techniques of production by firms.

The extent to which financial development enhances output growth in a firm or specific industry would very much depend on the level of dependence on external finance as against internal finance, as well as how much the costs of borrowing are reduced by financial development. Taking this into account, Rajan and Zingales (1998) examined whether industries that need external financing most develop faster in countries whose financial markets are more developed. Using data in 43 countries from 1980-1990, the study found evidence supporting this proposition in a large sample of countries. Financial development is shown to reduce costs of external finance and consequently improves investment, capital accumulation, and hence, results in higher economic growth.

At the micro-level, firm-specific characteristics such as size may have significant influence on the need for external financing. Guiso, Sapienza, and Zingales (2004) classified firms by size and investigated the effects of differences in local financial development in the integrated financial market of Italy. The evidence

suggests that the development of domestic financial sector has different significance for large and small firms. In other words, the small firms depend more on local financial development than the larger ones which can raise funds in international financial markets through their subsidiaries. However, size factor does not capture the industry characteristics of firms as small and large firms cut across different industries. In the context of the manufacturing industry, Neusser and Kugler (1998) investigated whether the development of the financial sector was essential for economic growth in the OECD countries from 1970-1991. They found that financial sector GDP was cointegrated for many OECD countries, not so much with manufacturing GDP, but mostly with manufacturing total factor productivity. This reflects the levels of development and efficiency of financial intermediaries in the region.

Gupta (2011) investigated the differences in the effects of financial development on the output of industries in different states (15 states) and industry grouping (22 industries) in India covering the period from 1992-2002. The study discovered that when the financial sector was deep, industries tended to use more of contract labour. This diminishes the adverse consequences of industrial disputes and hence raises output. However, financial deepening is unable to directly benefit industries crucially in need of external finance. In this manner, improved financial depth only eases the working capital needs of businesses, as against their investment needs. This result implies that although

financial development increases output, it does not lead to capital accumulation, and thus, financial development cannot ensure long-term growth. The study, however, used limited measure of financial development (industrial dependence on external finance).

In summary, there appeared to be a high level of aggregation (of countries, measures of financial development and real sector output) in finance-growth literature. In Malaysia, studies investigated the effect of financial development on real output growth largely concentrated on the aggregate output growth rather than sector-specific analysis. The neglect of this important issue in the existing literature created an empirical gap and has weakened the policy implications from such studies. Hence, this study was conducted with aim to fill this gap by empirically investigating the differential impact of financial development on sectoral output in Malaysia.

MATERIALS AND METHODS

Variables Description and Data Sources

Sectoral output, as a dependent variable, is represented by the GDP share contributed by each of the five economic sectors in Malaysia, namely, agriculture, mining and quarrying, manufacturing, construction and service, respectively. Bank credit is measured by the amount of loans/financing provided by commercial banks and Islamic banks to the five economic sectors, as outlined above. In addition, gross fixed capital formation, trade openness and average lending rate are added as control variables. Bank credit facilitates firms'

accumulation of physical capital, which serves as the basis for further production and growth. Trade openness, measured by the sum of exports and imports, allows firms to acquire necessary inputs as well as access foreign markets. The cost of borrowing is proxied by the average lending rate, indicating the interest rate environment which affects the firms' decision to borrow from the banking sector or explore other sources of funding. This study employs quarterly data covering the period 1997Q1 to 2014Q4. The data were obtained from the International Monetary Fund's *International Financial Statistics* and Bank Negara Malaysia's *Monthly Statistical Bulletin*.

Estimation Techniques

This study adopts the bounds testing approach to cointegration based on Autoregressive Distributed Lag (ARDL) model framework, as proposed by Pesaran, Shin, and Smith

(2001). An important feature of the ARDL approach compared to other cointegration approaches such as that of Engel and Granger (1987) and Johansen and Juselius (1990) is that the ARDL does not impose restriction on the integration order of the variables being all $I(1)$. Consequently, the ARDL can be applied regardless of whether the variables are all $I(0)$, $I(1)$ or mutually cointegrated (Pesaran et al., 2001). Even in the presence of endogenous regressors, the ARDL technique addresses the problem associated with omitted variables and autocorrelations, in addition to providing unbiased and efficient estimates, as well as valid t-statistics (Narayan, 2004; Odhiambo, 2010). The ARDL approach involves the estimation of a restricted error correction (EC) version of the ARDL model. For this research, the model involving sectoral output, bank credit and other control variables is presented in Equation (1) below.

$$\begin{aligned} \Delta \ln(SGDP)_t = & \alpha_0 + \alpha_1 \ln(SGDP)_{t-1} + \alpha_2 \ln(SBCR)_{t-1} + \alpha_3 \ln(GCF)_{t-1} + \alpha_4 \ln(OPN)_{t-1} \\ & + \alpha_5 ALR_{t-1} + \sum_{i=1}^p \beta_1 \Delta \ln(SGDP)_{t-i} + \sum_{i=0}^p \beta_2 \Delta \ln(SBCR)_{t-i} + \sum_{i=0}^p \beta_3 \Delta \ln(GCF)_{t-i} + \sum_{i=0}^p \beta_4 \Delta \ln(OPN)_{t-i} \\ & + \sum_{i=0}^p \beta_5 \Delta(ALR)_{t-i} + \mu_t \end{aligned} \quad [1]$$

SGDP is the vector of sectoral GDP; with AGR, MNQ, MNF, CTR and SVG representing GDP for the agriculture, mining and quarrying, manufacturing, construction and service sectors, respectively. SBCR is the vector of sectoral bank loans/financing to the five sectors represented by AGC, MNC, MFC, CTC and SVC in that order. On the

other hand, GCF, OPN and ALR represent fixed capital formation, trade openness and average lending rate, while p is the optimal lag length and μ_t is the error term. All the variables are in natural logarithm, except for ALR, which is a rate. F-test is conducted to detect if the variables are cointegrated that is if they have long-run relationship.

The null hypothesis is $H_0: \alpha_1 = \alpha_2 = \alpha_3 = \alpha_4 = \alpha_5 = 0$, which is tested against the alternative hypothesis $H_1: \alpha_1 \neq \alpha_2 \neq \alpha_3 \neq \alpha_4 \neq \alpha_5 \neq 0$.

However, the asymptotic distribution of F-static is not standard for bound test, therefore, the computed F-statistic is assessed based on the critical values provided by Narayan (2004). These are two sets; the lower bound critical values, which assume all the variables to be $I(0)$ and the upper bounds values, which assume all the variables to $I(1)$. Accordingly, the decision rule is as follows. If the computed F-statistic

is less than the lower critical bound, then H_0 cannot be rejected, hence we conclude that there is no cointegration. On the other hand, when the calculated F-statistic is greater than the upper critical bound, H_0 is rejected and we conclude that there is cointegration among the variables. However, if instead, the calculated F-statistic value is in between the two critical bounds, then the result is inconclusive. Upon establishing long run relationship among the variables, now a long-run model is estimated as given by Equation (2) below.

$$\ln(SGDP)_t = \beta_0 + \sum_{i=1}^p \beta_1 \ln(SGDP)_{t-i} + \sum_{i=0}^p \beta_2 \ln(SBCR)_{t-i} + \sum_{i=0}^p \beta_3 \ln(GCF)_{t-i} + \sum_{i=0}^p \beta_4 \ln(OPN)_{t-i} + \sum_{i=0}^p \beta_5 ALR_{t-i} + v_t \tag{2}$$

In order to get the short-run coefficients, an error correction model (ECM) is

estimated. The ARDL specification of the ECM is represented in Equation (3) below.

$$\Delta \ln(SGDP)_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta \ln(SGDP)_{t-i} + \sum_{i=0}^p \beta_2 \Delta \ln(SBCR)_{t-i} + \sum_{i=0}^p \beta_3 \Delta \ln(GCF)_{t-i} + \sum_{i=0}^p \beta_4 \Delta \ln(OPN)_{t-i} + \sum_{i=0}^p \beta_5 \Delta (ALR)_{t-i} + \varphi ECT_{t-1} + \eta_t \tag{3}$$

ECT is the error-correction term. However, cointegration only implies causality but does not show its direction. According to Engle and Granger (1987), if cointegration is confirmed among variables, causality relationship can be investigated within a dynamic error correction framework, as contained in Equation (3) above. The short-run causality is captured in the specific coefficients of the lagged terms,

while the error correction term contains information of the long run causality. Hence, if the coefficient of each lag independent variable is significant, it signifies short-term causation and a negative and statistically significant error correction term signifies long-run causality (Adebola, Yusoff, & Dahalan, 2011). For the purpose of selecting optimal lag length, the SBC criterion is adopted. Because it always selects

parsimonious model, this means it chooses the smallest possible lag length. It also has lower prediction error than the AIC criterion (Jalil & Ma, 2008).

In order to ensure the goodness of fit of the models and to enable the results be relevant for policy recommendation, some diagnostic tests are conducted. In this regard, serial correlation, normality, functional form and heteroscedasticity tests are performed. Similarly, as suggested by Pesaran and Pesaran (1997), the cumulative sum of recursive residuals (CUSUM) and the cumulative sum square of recursive residuals (CUSUMSQ) tests are executed to test for structural stability of the parameter estimates.

RESULTS AND DISCUSSION

The analysis commenced with unit root tests, in which case the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests are performed. Table 1 revealed that all the variables have unit root at their levels, which means they are not stationary. The only exceptions are in the cases of manufacturing GDP (LMNF) and gross fixed capital formation (LGCF), which are found to have no unit root at their levels, and hence, are stationary at level or integrated of order zero, i.e. $I(0)$. After taking the first difference, the unit root in the remaining variables disappeared and they became stationary. Therefore, they are integrated of order one, $I(1)$. The mixed order of

Table 1
Results of Unit Root Tests

Variables	ADF Test		PP test		Stationarity Status
	Level	First Difference	Level	First Difference	
LAGR	-3.05	-8.92***	-3.02	-10.41***	I(1)
LMNQ	-2.79	-6.49***	-1.99	-6.46***	I(1)
LMNF	-4.18***	-6.16***	-3.60**	-9.62***	I(0)
LCTR	-2.55	-2.62*	-1.88	-9.14***	I(1)
LSVG	-1.32	-10.73***	-1.62	-10.73***	I(1)
LAGC	-1.91	-6.85***	-1.96	-6.85***	I(1)
LMNC	-0.98	-8.05***	-0.98	-8.06***	I(1)
LMFC	-1.60	-6.89***	-1.82	-6.86***	I(1)
LCTC	-0.43	-7.20***	-0.94	-7.22***	I(1)
LSVC	-2.87	-2.79*	-1.64	-10.02***	I(1)
LGCF	-4.45***	-5.10***	-2.60	-8.20***	I(0)
LOPN	-3.03	-4.75***	-3.75**	-14.59***	I(1)
ALR	-2.94	-5.64***	-1.93	-4.55***	I(1)

Notes. Lag lengths are selected based on Schwarz Bayesian Criterion. The test statistics are compared with critical values from McKinnon (1996); ***, ** and * denote significance at 1%, 5% and 10% respectively.

integration of the variables provides a strong justification for the adoption of the ARDL method in this study.

Upon verifying the stationary status of the variables, the cointegration test is then conducted using the bounds testing approach. The results are presented in Table 2. The findings show that in all the models involving the five sectors, and the calculated F-statistics are greater than the 1% upper critical bound value. This means that long-run relationship exists between output in the five sectors on one hand and the bank loans/ financing they received, after controlling for capital formation, trade openness and cost of borrowing.

Having established that long-run relationships exist among the variables, the next step is to estimate these relationships and their short-run dynamics. As shown in Tables 3 and 4, bank credits were found to have no effect on output of the agriculture sector, both in the short- and long runs. The

failure of bank loans to have significant impacts on the agricultural sector might be attributed to the very little share of bank loans that the sector received. For instance, in the first quarter of 2015, the primary agriculture received only 3.3% of the total loan disbursed by the banking sector (Ministry of Finance Malaysia, [MOF], 2015). On the other hand, bank credit has positive and significant effects on the mining and quarrying sectors in the short run, while this effect has become insignificant in the long run. These findings suggest that the mining sector in Malaysia is responding accordingly to the shifting trend of the financial system, where bank loan is losing its dominance as a source of corporate credit. The long-term nature of the projects in the mining sector makes it requires longer term sources of funding, which the banking sector is usually not disposed to provide. Therefore, the increasing prominence of the corporate debt market in the Malaysian financial system is better serving the financing needs of the mining sector in the long run.

However, bank credit was found to have significant positive influence on the manufacturing sector output in both the short run and long run. Nonetheless, the effect is greater in the short run than in the long run ($0.59 > 0.24$). This shows that the manufacturing sector in Malaysia is also adjusting to the dynamics of the financial system in terms of its financing needs, as the results show that bank credit could better serve the short-term financing needs of the sector, as against its long-term financing needs. Hence, the sector is exploring other

Table 2
Results of Bounds F-Test for Long-Run Relationship

	Agriculture	12.39
	Mining	12.17
Computed F-Statistics	Manufacturing	6.21
	Construction	11.55
	Service	5.65
Critical Bounds (n = 72; k = 4)		
Levels of Significance	I(0)	I(1)
1%	3.69	4.84
5%	2.73	3.72
10%	2.31	3.23

Note. The critical values are based on Narayan (2004), case II restricted intercept and no trend.

sources of long-term financing such as the bond market. Currently, the manufacturing sector is still receiving a significant portion of total bank credit of around 19.0% of the total loan disbursed by the banking sector in the first quarter of 2015 (MOF, 2015).

As for the construction sector, bank credit has greater effects on this sector's output in the long run than in the short run ($0.90 > 0.24$). This result highlights the nature of the construction sector, which relies more on mortgage loans that are more suitable to be provided by the banking sector. These loans are usually of medium- and long-term nature and are offered to the household sector to enable families acquire houses. This largely explains the high level of household credit in Malaysia, which increased tremendously from 34.4% of

the total outstanding loans to 54.5% over the decade, i.e. from 2000 to 2010 (BNM, 2011). The changing trend in the Malaysian financial setting has not substantially affect the attachment of the construction sector to the banking sector, with regard to the provision of funds.

Similarly, the service sector of Malaysia enjoyed greater and significant influence from bank credit in the long run than in the short run ($0.20 > 0.07$). This sector is the largest contributor to Malaysia's GDP, accounting for 53.5% in 2014 (BNM, 2015). The wholesale, retail, restaurants and hotels, as well as the transport, storage and communication segments of the service sector, received modest share of bank loan amounting to 19.9% of the total disbursed loan in the first quarter of 2015 (MOF,

Table 3
ARDL Estimate of Long-Run Relationship

Regressors	Agriculture	Mining	Manufacturing	Construction	Service
LAGC	-0.14				
LMNC		-0.04			
LMFC			0.24**		
LCTC				0.90***	
LSVC					0.20**
LGCF	-0.42	-1.34	-0.33***	0.74***	-0.04
LOPN	-0.34	4.25***	0.70***	-1.34***	0.73***
ALR	0.11***	-0.13**	0.02*	-0.12***	0.03***
Intercept	17.44***	-28.36***	1.84	9.03***	-0.53
Diagnostic Tests Statistics					
Serial Correlation	2.52 [0.64]	2.62 [0.62]	5.23 [0.26]	6.21 [0.18]	1.54 [0.82]
Functional Form	0.02 [0.90]	0.18 [0.67]	2.42 [0.12]	0.16 [0.69]	0.16 [0.69]
Normality	2.40 [0.30]	1.56 [0.46]	1.51 [0.47]	1.43 [0.49]	6.88 [0.03]
Heteroscedasticity	4.40 [0.04]	1.33 [0.25]	0.45 [0.50]	0.02 [0.88]	0.10 [0.75]

Note. ARDLs (1,0,0,1,0); (1,1,0,2,0); (1,1,3,0,2); (4,0,0,1,1) and (1,0,0,4,0) for the five sectors respectively, selected based on the SBC criterion.

***, ** and * represent statistical significance at 1%, 5% and 10% respectively, p-values in [].

2015). The greater effect of bank credit on output in the service sector can be explained by its conglomeration of many sub-sectors of varying characteristics and funding needs. For instance, the electricity, gas and water segment may need long term financing that can be provided by the bond market, while the wholesale, retail, restaurants and hotels, transportation, storage and communication, as well as education, health and other segments may require short- to medium-term financing that the banking

sector can readily provide. Thus, even with the increasing dominance of corporate debt market in the Malaysia's financial system, enterprises in the service sector are still exploring bank loan as a source of finance. These enterprises are mostly small and medium scale, which lack the capacity to patronise the bond market. Hence, they have no option other than to patronise the banks. Thus, the response of the service sector to the changing dynamics in the financial system is a bit ambiguous. While firms in

Table 4
Results of ARDL Short-Run Estimates and ECM

Regressors	Agriculture	Mining	Manufacturing	Construction	Service
$\Delta LAGC$	-0.06				
$\Delta LMNC$		0.20**			
$\Delta LMFC$			0.59***		
$\Delta LCTC$				0.24***	
$\Delta LSVC$					0.07**
$\Delta LGCF$	-0.19	-0.23	-0.07	0.20**	-0.01
$\Delta LGCF(-1)$			0.25***		
$\Delta LGCF(-2)$			0.18***		
$\Delta LOPN$	1.11***	0.85***	0.51***	0.09	0.28***
$\Delta LOPN(-1)$		0.68***			-0.11**
$\Delta LOPN(-2)$					-0.15***
$\Delta LOPN(-3)$					-0.22***
ΔALR	0.05***	-0.02**	0.01	0.003	0.01**
$\Delta ALR(-1)$			0.02***		
Intercept	7.88***	-4.88**	1.35	2.45***	-0.17
ECM(-1)	-0.45***	-0.17***	-0.73***	-0.27***	-0.33***
Joint Significance and Diagnostic Test Statistics					
R-Squared	0.61	0.58	0.82	0.77	0.67
R-Bar-Squared	0.56	0.52	0.78	0.73	0.61
F-Stat.	15.41	13.63	27.44	24.28	12.62
SE-Regression	0.07	0.08	0.02	0.04	0.02
DW-Statistic	1.73	1.70	1.77	1.74	1.96

Note. ARDLs (1,0,0,1,0); (1,1,0,2,0); (1,1,3,0,2); (4,0,0,1,1) and (1,0,0,4,0) for the five sectors, respectively, selected based on the SBC criterion.

***, ** and * represent statistical significance at 1%, 5% and 10%, respectively.

the electricity, gas and water segments may find the bond market more suitable to their financing needs, those in the other segments are by their nature constrained to bank loans.

Among the other control variables, trade openness turnout as the most significant in influencing output growth in the five sectors. This is consistent with the structure of the Malaysian economy, in which export of goods and services is one of the major engines of growth. Jointly, all the independent variables largely explain the variations in the independent variables, which range from 58% for the mining and quarrying sector to 82% for the manufacturing sector (Table 4). In all the sectors, adjustment from the short run to the long run is taking place as suggested by the negative and statistically significant one-lagged error correction terms. It further shows that a substantial portion of the deviations, from the equilibrium path, is adjusted in one quarter, varying from 17% in the mining and quarrying sector to 73% in the manufacturing sector. The results of the diagnostic tests are contained at the bottom of Table 3. This shows that all the models in the five sectors are correctly specified and there is no serial correlation among their residuals. Moreover, the residuals are also normally distributed and homoscedastic. Overall, the estimated coefficients are stable over the sample period, as indicated by the results of the cumulative sum of recursive residuals (CUSUM) and the cumulative sum squares of recursive residuals (CUSUMSQ), as shown in Appendix A.

CONCLUSION

Amid the gradually declining trend of bank credit as a source of corporate finance in the Malaysian financial system, this study attempted to investigate the effects of bank credit on the output growth in the five real economic sectors of Malaysia. The study employed the quarterly data covering 1997Q1 to 2014Q4 and used the ARDL and ECM approaches. The empirical evidences showed that the agriculture sector is not being influenced much by bank credit, both in the short and long runs. On the other hand, the mining and quarrying and manufacturing sectors are depending less and less on bank credit as a source of finance in the long run, implying that the two sectors are adjusting their sources of finance, in line with the dynamic financial system. Contrarily, the construction and service sectors are relying more on bank credit for their long-term financial needs. For the construction sector, its unique financing need (mortgage loan) is better provided by the banking sector, while in the case of the service sector, the scale of the enterprises (small and medium) constrains them to depend on bank loan even in the long run.

Overall, the study concludes that the various economic sectors in Malaysia are being influenced differently by bank credit and they are also responding in divergent ways to the changing dynamics of the financial system. Several important policy implications can be drawn from this study. The results suggest the importance of considering the sectoral-specific

characteristics in extending bank financing to ensure the effectiveness of the financing in supporting the growth of the sector. Meanwhile, as for the agriculture sector, there seems to be a need for concessionary finance to this sector, which is not adequately being served by the banking system. In this regard, other sources of financing could be explored such as the bond and stock markets.

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APPENDIX

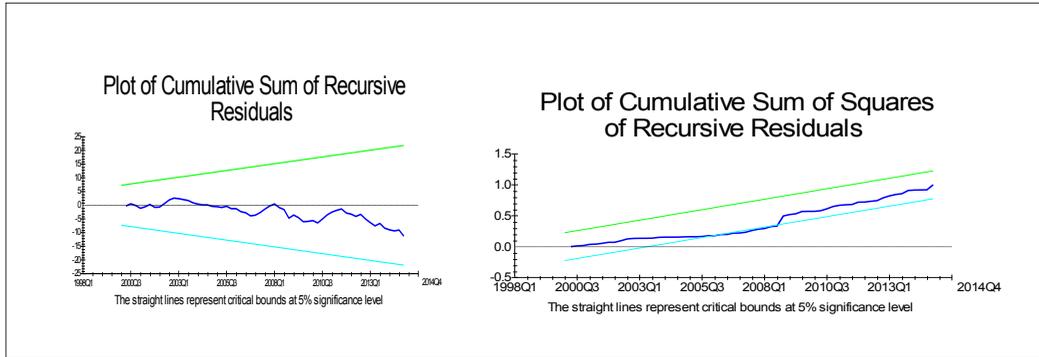


Figure 1. CUSUM and CUSUMSQ plots for the agriculture sector

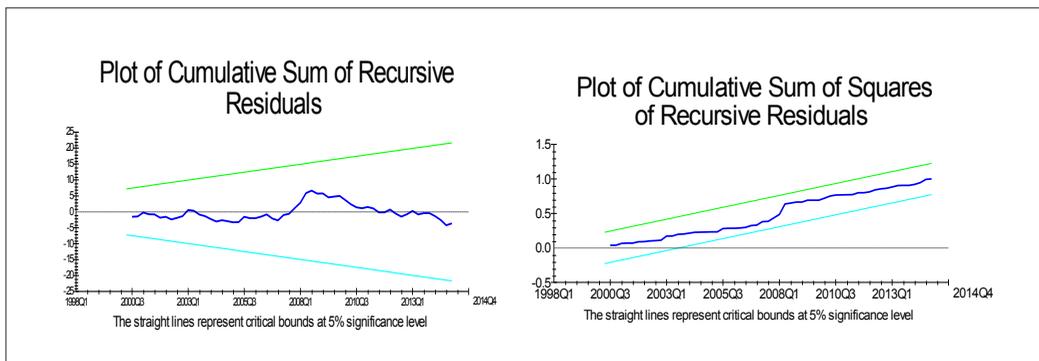


Figure 2. CUSUM and CUSUMSQ plots for the mining and quarrying sector

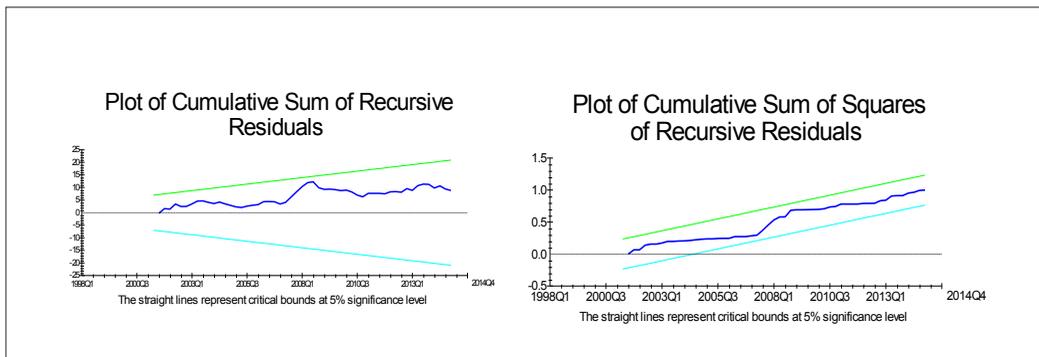


Figure 3. CUSUM and CUSUMSQ plots for the manufacturing sector

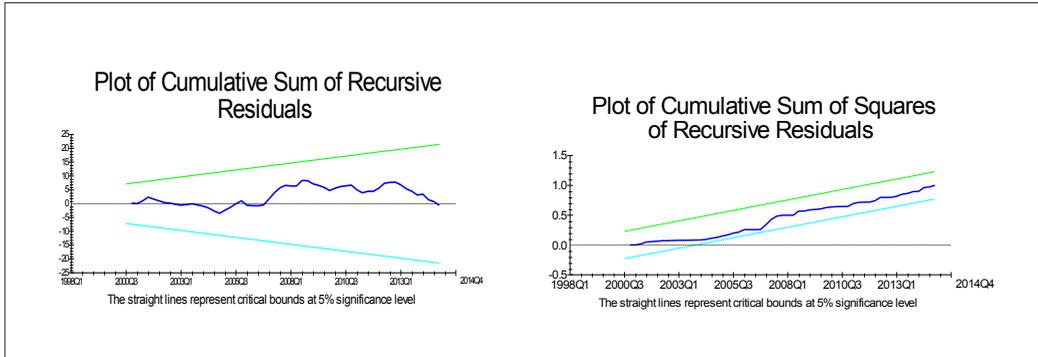


Figure 4. CUSUM and CUSUMSQ plots for the construction sector

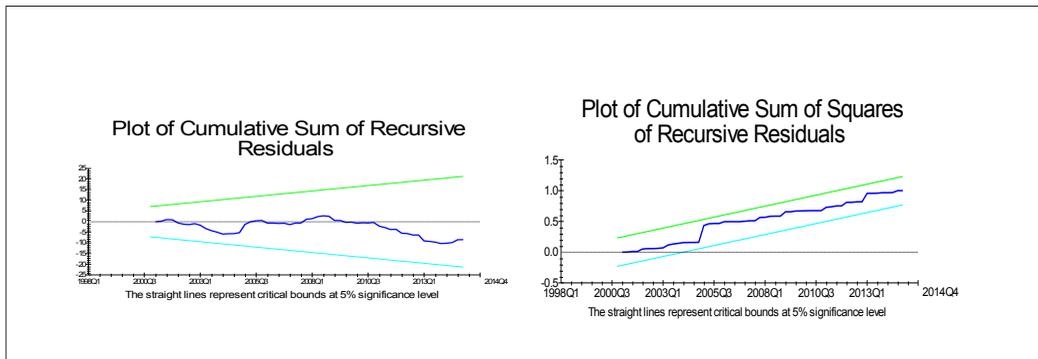


Figure 5. CUSUM and CUSUMSQ plots for the service sector



Economic Growth and Inter-Regional Disparity: An Economic Policy Debate

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ABSTRACT

Since the implementation of the decentralisation policy in 2001, it has brought different facets and consequences onto the Indonesian economy. International experiences expose it that this policy has positive aspects in social and democratic. On the other hand, it will hurt the economic development. It is a known fact that this policy needs better people's participation and involvement in policy decision, but it should bring the improvement of economic development and increasing life quality of the people in the end. The Indonesian government has shown effort to achieve all objectives, despite being under certain limited conditions. For example, through increasing transfer funds to local government year to year, it is expected that development problems such as inter-regional disparity can be reduced significantly. Based on the above problem, this study was conducted with the aim to analyse the impacts of fiscal decentralisation, education, unemployment, infrastructure, manufacture sector, regional and minimum wages on inter-regional disparity occurring in Indonesia. In addition, the study was done to determine factors influencing regional economic growth. For this purpose, secondary data were used to identify the problems and an explorative method was used to explain and answer the research questions. The study indicated several findings. First, economic growth does not affect regional disparities, while fiscal decentralisation in term of spending and revenue share influences economic growth. Second, income disparity influences economic growth, while fiscal decentralisation has no influence on economic growth.

Keywords: Transfer fund, infrastructure, inter-regional disparity and coordination, economic growth

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INTRODUCTION

Fiscal decentralisation policy has now become a trend in the model of economic development of many developed and

developing countries. The purpose of the implementation of the fiscal decentralisation policy is basically to improve the performance of the public sector (Oates, 1999). If the performance of the public sector is better, it is expected to promote efficiency of resource allocation. Therefore, fiscal decentralisation policy is expected to stimulate economic development in various sectors. Furthermore, the issues of economic growth and equitable development are important topics relating to the implementation of fiscal decentralisation policy. Based on the concept of the theory, some empirical evidence suggests that fiscal decentralisation can affect economic growth (see Davoodi & Zhou, 1998; Woller & Phillips, 1998; Xie et al., 1999; Lin & Liu, 2000) and income inequality (see Akai & Sakata 2005; Neyapti, 2006; Zhang, 2006; Song, 2013). However, research related to the success of the implementation of the policy of fiscal decentralisation in developing countries is still very limited, especially in Indonesia.

There are at least three motives that make it interesting to study the data available to the cases in Indonesia. Initially, Indonesia, as a developing country having commonly less effort in implementing the concept of fiscal decentralization, is an essential subject to be analysed in term of the its accomplishment in fiscal decentralisation concept itself. Second, Indonesia is a country with cultural and ethnic diversity, where fiscal decentralisation will create a distinct challenge for Indonesia compared to other countries with not much of diversity.

Thirdly, there are few studies analysing the influence of fiscal decentralisation on disparity by using data at the provincial level, particularly in Indonesia.

Issues related to the impacts of fiscal decentralization policy towards income inequality have gained the attention of many economists. Prud'homme (1995) argued that fiscal decentralization would further exacerbate regional income disparity. It is due to the limited role of the central government in income redistribution, which should be higher. The role can be implemented through higher control in tax collection and expenditures.

However, numerous former studies have revealed diverse outcomes. The outcomes are for and against the hypothesis of Prud'homme. Among other, Akai and Sakata (2005) explained fiscal decentralisation as a commitment device which decreases disparity. Furthermore, they clarified that areas being largely dependent on the central government in funding will be provided with incentives in their efforts of fiscal decentralisation. Based on the data obtained for the United States, evidence showed that fiscal decentralisation had negative impacts on the regional income disparity. The accomplishment of this study cannot be dismissed from two factors: first, the availability of sufficient data; and secondly, the studied country is in the category of developed countries.

Meanwhile, other studies prove the opposite outcome. Song (2013) described that fiscal decentralisation essentially escalates the regional income disparity.

The data in his study were derived from provinces in China. As a developing country, China has the advantage of high economic growth in the last decade. Nevertheless, dissimilarities in the fiscal capacity of each region in China have become the core problem of regional income disparity. In addition, the running design of fiscal systems also provides significant contribution to regional income disparity.

Highlighting the contradictions of other studies' outcomes, this study attempted to clarify the role of fiscal decentralisation in decreasing regional income disparity. Furthermore, this study analysed the influence of fiscal decentralisation on regional income disparity at the provincial level in Indonesia. Indonesia is a developing country which adopts the concept of fiscal decentralisation. Hoffman and Kaiser (2002) noticed that Indonesia has had a fast alteration in the country's fiscal system since 2001, hitherto, Indonesia is known as a country with a highly centralised fiscal system and now Indonesia has become the most decentralised country.

This study varies from preceding studies on, at least, two things. First, this study observes how the role of fiscal decentralization and economic growth in regional income disparity with data at provincial level in Indonesia during 2009-2013. Second, this study is also an attempt to understand the important roles of economic growth and fiscal decentralisation in distributing regional income. Furthermore, this study is divided into several sections. The second section

discusses review of previous literature. The third section discusses the analysis methods used, while the fourth section describes the outcomes and provides discussion for the findings. In the last session, conclusion and recommendations are given based on findings of the study.

LITERATURE REVIEW

There are many studies on decentralization and regional income disparity. On the other hand, there are limited studies which specifically focused on the case in Indonesia. The literature review gives details pertaining to the outcome of former studies in line with this study.

Song (2013) conducted a study using samples of data taken from the provincial level in China during 1978-2007. The outcome is fiscal decentralization through the expenditure side impact on increasing regional income disparity. Meanwhile, on the revenue side, fiscal decentralisation influenced increasing regional income disparity from the 1980s until 1994. After 1994, however, fiscal decentralisation influenced reduction of the regional income disparity. Then, by proxy power autonomy, fiscal decentralisation had an influence on the increase in regional income disparity in 1980s until 1994, and after that fiscal decentralisation has influenced on the decline of regional income disparity. Furthermore, Song explained that equalisation funds being transferred from central government to locals cannot directly reduce regional income disparity. Conversely, if the equalisation funds are

given to poor region accurately, it may be able to reduce regional income disparity.

Neyapti (2006) used data of 37 countries (from both developed and developing countries) to provide evidence that fiscal decentralisation through revenue side contributes to the increase in income disparity. Furthermore, he explained that if fiscal decentralisation is accompanied by good governance, it may lead to reduction of income disparity.

Zhang (2006), using data from 1860 counties in China from 1993 to 2000, proved that fiscal decentralisation turned out to increase the regional income disparity. One of the reasons is that a region, which is based on agricultural sector, will have problem generating local revenue so that local taxes will result in the region's inability to provide services for community. Conversely, the areas which are not dependent on the agricultural sector will easily generate local tax revenues that will result in ease for the region in providing services for the community.

Ezcurra and Pascual (2006), using data from countries in the European Union, proved that fiscal decentralisation has a negative affiliation to regional income disparity. The fact is vivid that progress in decentralisation process will reduce regional income disparity. They also claimed that the outcomes of this study are also consistent with some former studies, in which fiscal decentralisation was found to encourage the establishment of equitable distribution of resources among regions.

RESEARCH METHOD

The previous study applied panel data regression model approach to answer the research problems, as described in the previous session: (1) the role of fiscal decentralization in reducing regional income disparity in 33 provinces in Indonesia, with the time period from 2009 to 2013; (2) the roles of economic growth and fiscal decentralisation in regional income disparity. The reason for the selection of time period is the availability of limited data. Data used in this study are secondary data obtained from publication of the Central Bureau of Statistics Indonesia and the Ministry of Finance of Indonesia.

The following is the panel data regression model used in this study:

$$INQ_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 GDP_GROWTH_{it} + CV_{it} + \epsilon_{it} \dots\dots\dots (1)$$

$$GDP_GROWTH_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 INQ_{it} + CV_{it} + \epsilon_{it} \dots\dots\dots (2)$$

where,

INQ is variable regions income disparity, as measured by the Gini coefficient values in each province. FD is fiscal decentralisation, where variables are measurable from three proxies (Akai & Sakata; 2005; Song, 2013). The third proxy of this variable is spending share (SS), revenue share (RS), and power autonomy (AP). SS is measured from the expenditure to total expenditure province *i* across the whole province

(%). RS is measured from the revenue of province *i* to the total revenue of the whole province (%). AP is measured on local own revenue (PAD) of the province *i* to the total expenditure of province *i* (%). GDP_GROWTH is economic growth measured by the percentage change in the value of Gross Domestic Product (GDP) from the previous year to the current year in the province *i* (%).

CV is the control variable that supports this research. In the first model, these variables are: (i) human capital as measured by the average length of the school of population (years) in the province *i* and denoted as Education; (ii) unemployment rate in the province *i* measured from the percentage of people who do not work against the total workforce and denoted as unemployment, (iii) the length of road (km) which is owned by the provincial government in province *i* and denoted as Road Infrastructure; (iv) contributions of the industrial sector measured by GDP contribution to total industry sector GDP in the province *i* and denoted as Manufacture; and (v) the regional minimum wage (dollars) applied to province *i* and denoted as Regional Wage.

In the second model, the control variables are in use, among others, (i) length of road (km) which is owned by the provincial government in province *i* and denoted as Road Infrastructure; (ii) labour is measured from the value of the log number of population aged 15 years and over which includes the labour force in the

province *i* and denoted as Labor; and (iii) capital measured from the investment sector contribution to the total GDP in province *i* (%) and denoted as Capital, exports measured from the contribution of export sector to total GDP at *i* province (%).

RESULTS AND DISCUSSION

Influence of Fiscal Decentralization and Economic Growth toward Regional Income Disparity

The outcomes of three panel data regression in Table 1 below define key results of this study. In the first model, fiscal decentralisation on the side of power autonomy is not statistically significant, indicating that public expenditure supported by the original reception area does not have any influence on the regional income disparity.

This finding contradicts with the results of obtained by Song (2013). At least there are two things that can explain such things; first, the limited number of local revenues generated by the provincial government in general does not contribute much to the economic development in the region, so this condition does not have implications on disparity; second, a greater dependence to fund the balance of the central government caused the provincial government does not have great authority in the task to spread income. In contrast to the second and third models, fiscal decentralisation on the revenue side and the spending share statistical significance. This indicates

Table 1
Effects of Fiscal Decentralization and Regional Economic Growth on Regional Income Inequality

VARIABLES	(1)	(2)	(3)
FD1: Autonomy Power	0.0429 (0.0505)		
FD2: Revenue Share		-2.405* (1.250)	
FD3: Spending Share			-2.227* (1.164)
Education	6.776*** (1.514)	6.215*** (1.510)	6.171*** (1.515)
Unemployment	-0.259 (0.167)	-0.299* (0.165)	-0.297* (0.165)
Road Infrastructure	0.000969** (0.000408)	0.00160*** (0.000486)	0.00157*** (0.000478)
Manufacture	0.413*** (0.156)	0.329** (0.156)	0.325** (0.157)
Regional Wage	2.25e-06 (1.55e-06)	4.51e-06** (1.97e-06)	4.38e-06** (1.93e-06)
Economic Growth	0.109 (0.0674)	0.105 (0.0664)	0.0988 (0.0665)
Constant	-29.99** (12.84)	-24.12* (12.33)	-23.60* (12.37)
Observations	158	158	158
R-squared	0.466	0.479	0.479
Number of province	33	33	33
Country FE	YES	YES	YES

Notes. Based on Hausman test our model favour to fixed effect approach. All equations do not have problem with heteroscedasticity and autocorrelation. Standard errors are indicated in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

that the greater the income earned by the provincial government will relatively reduce the disparity; the greater public expenditure undertaken by the provincial government will also relatively reduce the imbalance.

The economic growth in the three models is not statistically significant. It

indicates that economic growth has no significant role in the regional income equalisation. This finding provides new evidence that income disparity cannot be eliminated or minimised by developing the local economy only.

Effects of Fiscal Decentralisation and Regional Income Inequality on Economic Growth

Data presented in Table 2 show that the third fiscal decentralisation in the existing model is not statistically significant. This result implies that economic growth in the region cannot be explicated by fiscal

decentralisation. This finding is unanticipated since the preceding study (see Davoodi & Zou, 1998; Lin & Liu, 2000) resulted in positive findings. The implications of these findings can be described as follows, as in the finding of Woller and Phillips (1998), which is also not significant. The data used to describe fiscal decentralisation in this

Table 2
Effect of Fiscal Decentralisation and Regional Income Inequality on Economic Growth

VARIABLES	(1)	(2)	(3)
FD1: Autonomy Power	-0.00739 (0.0211)		
FD2: Revenue Share		-0.195 (0.289)	
FD3: Spending Share			-0.316 (0.323)
Inequality	0.184** (0.0734)	0.188** (0.0779)	0.191** (0.0780)
Road Infrastructure	7.30e-05 (0.000112)	0.000200 (0.000241)	0.000265 (0.000261)
Labor	-2.587** (1.203)	-2.809*** (0.541)	-2.766*** (0.554)
Capital	0.0383* (0.0201)	0.0402** (0.0165)	0.0408** (0.0163)
Ekspor	0.0345*** (0.00890)	0.0344*** (0.00985)	0.0347*** (0.00976)
Constant	13.99* (7.966)	14.82*** (4.648)	14.41*** (4.738)
Observations	165	165	165
R-squared	0.152	0.153	0.154
Number of province	33	33	33
Country FE	YES	YES	YES
Number of province	33	33	33
Country FE	YES	YES	YES

Note. All equations have problem heteroscedasticity and autocorrelation. To solve these problems, the PCSE approach was used in the all equations. Standard errors are indicated in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

study are those at the provincial level. Thus, the possible effect of data usage is low or insignificant. Nevertheless, if the data are at the municipality/district level, it may produce significant findings.

Next, income disparity of the three models exhibited a statistically significant and positive finding. This finding suggests that the higher the level of income disparity, the higher the regional economic growth will be. According to the study of Qiao et al. (2008), fiscal decentralization policy was found to allow for the potential trade-offs of policy objectives, which promotes economic growth or reduces income disparity.

CONCLUSION AND POLICY IMPLICATIONS

This study investigated two key objectives of economic policy which is often debated in policy making, especially in the context of fiscal decentralisation, viz. economic growth and regional disparities. Firstly, this study sought to investigate whether the economic growth and fiscal decentralisation have any influence on income disparity, and secondly, it was done to determine whether income disparity and fiscal decentralization have any influence on economic growth. Using data from 33 provinces in Indonesia, this study utilized panel data regression model to answer two research objectives.

The results of this study are as follows: First, economic growth does not affect regional disparities, while fiscal decentralisation in term of spending and revenue share influences economic

growth; secondly, income disparity influences economic growth, while fiscal decentralisation has no influence on economic growth.

These results seem to suggest that policy makers in the fiscal decentralisation area still have a lot to do, i.e. to rearrange the policy unless they are willing to deal with potential trade-off between economic growth and regional disparities. Policy related to efficiency of equalisation funds usage is a significant issue in harmonising development in regions due to the fact that most regions in Indonesia still have considerable dependency on the central government in financing their economic growth.

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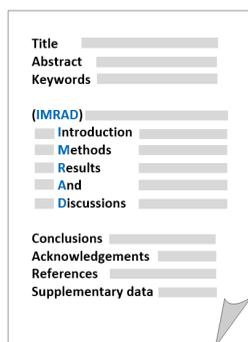
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