INSIGHT JOURNAL

UNIVERSITI TEKNOLOGI MARA
CAWANGAN JOHOR

Volume 2
2018

eISSN 2600-8564
Indexed in MyJurnal MCC

insightjournal.my

INSIGHT JOURNAL (IJ)
UiTM Cawangan Johor Online Journal Vol. 2: 2018
eISSN :2600-8564
Published by UiTM Cawangan Johor
insightjournal.my

About
INSIGHT Journal is a scholarly peer-reviewed open access online academic research journal. INSIGHT focuses on high quality papers in Social Science and Humanities particularly these following fields: Accountings, Business Management, Law, Information Management, Language Studies and Education. INSIGHT publishes only original research papers. This journal seeks clearly written research articles from experts in the selected fields.

Aims
INSIGHT Journal is a peer-reviewed open access online academic research journal established by Universiti Teknologi MARA Cawangan Johor, Malaysia. The main aim of INSIGHT Journal is to provide an intellectual forum for the publication and dissemination of original work that contributes to the understanding of the main and related disciplines of the following areas: Accounting, Business Management, Law, Information Management, Language Studies and Education. INSIGHT Journal aims to publish high-quality papers that will be of interest to educators, researchers and academicians. The journal invites authors to submit original and unpublished work in the form of a research paper. Manuscripts should follow the style of the journal and are subject to both review and editing.

TABLE OF CONTENTS

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Common Mistakes in Chinese Stroke Writing Among Non-Chinese Learners

***Ch'ng Looi-Chin[1], Ting Hie Ling[2] and Chuah Kee-Man[3]**

**[1]Academy of Language Studies, Universiti Teknologi MARA (UiTM) Sarawak
Kota Samarahan, Kuching, Malaysia**
chngl026@sarawak.uitm.edu.my

**[2] Academy of Language Studies, Universiti Teknologi MARA (UiTM) Sarawak
Kota Samarahan, Kuching, Malaysia**
tinghieling@sarawak.uitm.edu.my

**[3]Faculty of Language Communication, Universiti Malaysia Sarawak
Kota Samarahan, Kuching, Malaysia**
kmchuah@unimas.my

Abstract

The learning of stroke writing is a complicated process yet it is viewed as a fundamental element in Chinese language learning. This has brought great challenges to many learners especially non-native learners. This study aims to identify the types of stroke writing mistakes and the frequency of making the mistakes among the non-native learners. A dictation of 68 words was given to all 50 Foundation Mandarin level 2 Diploma students from Faculty of Business Administration. The words were extracted from their stroke writing exercises in the course's text book. Data suggested that Stroke Misalignment, Stroke's Shape and Non-existing Strokes are prominent mistakes done by the learners. The findings of the study recommend that stroke order might be one of the most impactful component to minimize stroke mistakes among the non-native learners. However, further studies need to be done to investigate the teaching methods that can deliver such component effectively.

Keywords: Chinese character stroke writing, Mistakes in Chinese stroke writing, Non-native Chinese learners, Chinese character stroke order, Learning strategies for stroke writing.

1. Introduction

The interest of learning Chinese language is dramatically increasing due to the needs of the global economy particularly with the continuous attention to penetrate the Chinese market. However, the learning of Chinese language would turn off most aspiring learners especially the non-native Chinese language learners. Many studies revealed that learning Chinese language is tough (Liu, 2014) and learners may need more time to learn the language (Freed 1995; Coleman, 1997). This is mainly due to its writing system which may seem to be complicated to most of the non-native learners. This study investigated the types of Chinese character stroke writing mistakes and the frequency of making the mistakes by the non-native learners in a Chinese course offered by Universiti Teknologi MARA in Sarawak, Malaysia.

2. Chinese Language, The Notorious Language

Liu (2014) study on English speakers, who begin to study Chinese abroad in China, revealed that Chinese is tough for these English speakers as they might need a longer time to embark their learning journey and the language input might be beyond their comprehension level, let alone producing appropriate responses. In the earlier studies done by Freed (1995, 1998) and Coleman (1997), they found that Chinese would be one of the notorious languages for English speakers and the learning time would take up to 2,200 class hours with half of the time spent in the country where the language is widely spoken. In comparison, Spanish can be learnt in 600 to 750 class hours in the similar learning context. Thus, their studies revealed that those speakers might take up extra time for Chinese language learning especially in the learning of tones in oral communication and characters in literacy acquisition. Thus, Chinese language might seem to be one of the toughest languages to be learnt. The main reason might be due to the distinct language system of English and Chinese which requires a different metalinguistic awareness (Koda, 2004) as compared to the learners' first language. In general, metalinguistic awareness refers to the awareness of the learners to be able to associate meaning to specific units of the language (e.g. sounds, words, part of speech, phonemes and etc.) (Koda, 2004).

Chinese characters are known as pictograph or logograph, in which the words cannot be deconstructed to individual phonemes (Koda, 2004) as in the alphabetical writing system in English. For instance, in English, the word "sufficient" can be broken down to syllabus as "suf-fi-cient" and each letter could be broken down again to individual phonemes pronounce as /səˈfɪʃ(ə)nt/. However, in Chinese, the words cannot be broken down past syllabus level as each 'syllabus' or better known as radical is already a morpheme on its own and has its own phoneme. To explain, the word "insufficient", "sufficient" denotes an adjective to describe the feeling of enough while its prefix "in-" denotes the meaning of not. Thus, the word "insufficient" means not enough. Whereas in Chinese, each radical represents a morpheme, a combination of morphemes creates a word carries a different meaning. For example, the word 惜 (xī) means to cherish, to begrudge and to pity. It consists of the left radical of "忄" (xin) which means love and right radical of "昔" (xi) means formerly, ancient, in the beginning, it also provides the sound for the word 惜.

In English, a change of prefix or suffix for the word would lead to the change of the word's part of speech within the word family that are related to each other and have a shared meaning. For instance, the word "sufficient", an adjective to describe enough can become "sufficiency", a noun to state the condition of being adequate when the suffix of the word changed. However, in Chinese, when the radical of the word changed it would change the word's original meaning and pronunciation entirely. Using the previous example, if the left radical "忄" of the word "惜" were to be substituted with the radical "钅" (jin) it forms the word "错" (cuò) which means wrong and with the radical "亻" (ren) it forms "借 " (jiè) which mean to borrow.

For hundreds of years, the Chinese people regard the knowledge of basic strokes as crucial for correct stroke writing. An improper writing of the strokes in the Chinese character writing is referred to as mistakes and can often lead to misunderstanding. Wrong stroke writing is referred as an error and it is more severe as it might impede the understanding of the readers.

As such, most learners would regard Chinese writing as one of the toughest components to be learnt. This is especially prominent for non-native or foreign language learners (FL) (Hoe, 2014) when the learners do not have any prior knowledge and environment to support their learning. Thus, it is crucial in this study to examine the stroke writing mistakes made by the non-native learners. This serves as a measurement to rectify their mistakes and any instructional misconduct in the Chinese language teaching classrooms.

Basic Strokes in Chinese Character Writing

According to Nancy et al. (1998), Chinese calligraphy in Kaishu can be discerned to the basic 8 strokes as illustrated in Figure 1. The first 6 stroke forms are considered as simple strokes that can exist independently, while the last 2 stroke forms cannot stand alone.

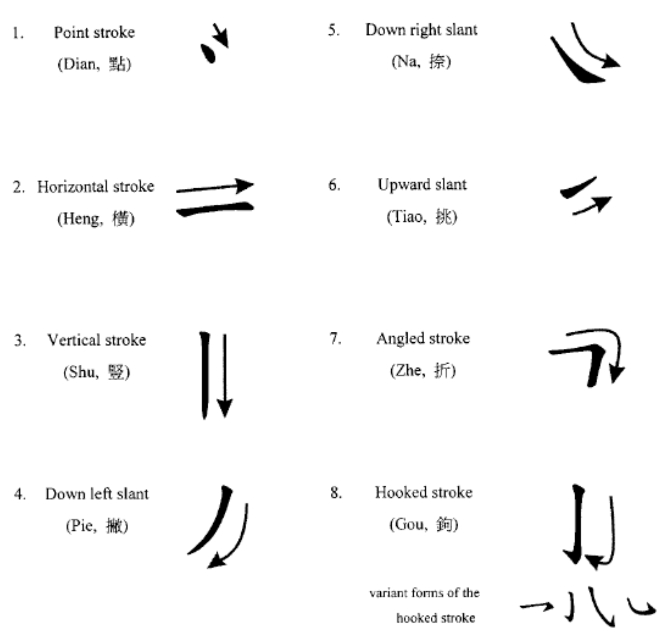


Fig. 1 Basic strokes type in Chinese characters (Nancy et al., 1998).

A Chinese character may consist of more than 1 similar basic stroke. Thus, a combination of basic strokes might form a myriad of Chinese characters. Each stroke can be viewed as the alphabet letter in English writing system. Unlike the English alphabet letters, broadly, there is a discrepancy in the number of basic stroke forms; Wen (1964) listed 22 stroke forms from a range of calligraphy handbooks, dictionaries and other publications and Wang and Xu (1993) listed 41 stroke forms (as cited in Nancy et al.,1998). This is simply because different studies used different categorization schemes. Other study done by Fei et al. (1992) for instance did not use any categorization scheme but list out the basic stroke forms from 6196 most commonly

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

used Chinese characters in the print of Ministry of Culture and the Committee for Revolutionizing Chinese Characters (1965) as in Figure 2.

	Stroke form	Stroke name	Example character	Frequency
1	㇐	横	十	18143
2	㇑	竪	中	11585
3	㇒	撇	八	10454
4	㇔	點	主	8929
5	㇕	横折	口	4362
6	㇏	捺	人	1945
7	㇀	提	地	1887
8	㇆	横折	月	1491
9	㇚	竪	小	1031
10	㇇	横撇	又	898
11	㇖	横	凸	823
12	㇟	竪彎	兄	776
13	㇜	撇折	么	720
14	㇙	竪折提	以	567
15	㇗	竪折	山	526
16	㇛	撇點	女	248
17	㇉	竪折折	马	247
18	㇂	斜點	我	174
19	㇌	横撇彎	队	155
20	㇊	横折提	记	150
21	㇁	彎	家	130
22	㇈	横折彎	九	110
23	㇄	竪彎	四	67
24	㇍	横折彎	朵	41
25	㇡	横折折折	乃	34
26	㇈	横斜	飞	34
27	㇋	横折折撇	及	30
28	㇓	竪折撇	专	6
29	㇞	竪折折	鼎	2
30	㇅	横折折	凹	1
31	㇎	横折折折	凸	1

Fig. 2 Simple stroke types (1, 2, 3, 4, 6&7), composite of stroke forms and their frequency of appearance in Chinese characters in Ministry of Culture and the Committee for Revolutionizing Chinese Characters 1965) (Fei et al., 1992).

The Radicals in Chinese Character Writing

The combination of basic stroke forms makes up the radicals, for example the combination of 2 basic strokes of "丿" (down left slant) and "㇏ " (down right slant) become "人" (ren) carries the meaning of human/person. It is also a radical "亻" pronounce as (ren). "人" can be a radical as well as a stand-alone Chinese character. In some situations, it acts as a semantic radical which contributes the meaning of the character like in "傲" (ào) carries the meaning of proud/pride which mainly describes human's feeling. While in certain cases, it acts as a phonetic radical to provide the pronunciation for the word like in "仁"(rén) which means humane, borrowing the pronunciation of the radical "亻 " (ren).

Thus, the radical of the word could be a radical of semantic that contributes the meaning of the character and mainly found on the left or top of a character (Ho et al.,2003; Liu et al.,2010). Meanwhile, a phonetic radical contributes phonetic clue to the pronunciation for the character (Ho et al.,2003; Su, 2010). Generally, phonetic radicals can be independent as a complete character unlike the semantic radicals (Su, 2010). However, research found that only 10% of the characters are strictly semantic (Ho et al., 2003), therefore, the term morphosyllabic is said to be more appropriate to describe

Chinese writing system as each character represents morphemes and syllabus (Guan et al., 2011; Su, 2010; Liu et al., 2010; Koda, 2004).

Such writing system could be confusing especially for a non-native learner. Since the knowledge of these basic stroke forms is fundamental in the Chinese character writing to facilitate proper construction of stroke writing (Nancy et. al, 1998), thus, most successful learners would apply appropriate strategies to improve their proficiency level in character writing.

Learning Strategies in Character Writing

Similar to the learning of other languages, in English, vocabulary learning is being valued as it is the beginning stage for the learners to notice and recognize the word (Elis, 1995; Schmidt, 2008). Enough exposure and repetition of the usage of the word would help to build up their vocabulary knowledge thus assist them to make meaning across (Cain, 2007; Jenkins, Stein, & Wysocki, 1984) when they read or write. In Chinese, leaning to write the characters is vital. Due to its complex writing system, the learning process would be tough but direct. To add, such process may be perceived to be a huge stumbling block for non-native Chinese learners.

Traditionally, repetition of stroke-by-stroke writing and the drilling of writing practices are one of the most effective methods for Chinese character writing. This rote learning is perceived as the most powerful learning strategies that enable the learners to recognize and memorize the characters well. Findings from McGinnis (1995) study indicated repetitive copying of characters is the main strategy applied by the non-native Chinese novice learners during the five-week summer immerse program. Wang (1998) and Yin (2003) studies that investigated learners' preferences of strategies used for effective learning of character writing echoed McGinnis' (1995) findings in which rote learning was the most preferred strategies used among the learners. Rote learning is perceived to be the most effective way to promote better mastery of character writing.

The study carried out by Ke (1998) and Sung (2012) revealed that learners heavily depended on orthographic knowledge-based strategies to perform well in character writing. Thus, studies show that leaners tend to rely on repetitive copying to enhance their word recognition and memorization via orthographic processing. This increases their understanding of the construct and structure of the Chinese character which lead them to handle the character writing better.

Though repetitive copying and memorization are viewed as the most effective strategies for the learning of character writing but mistakes in the stroke writing still persist in various ways as revealed in past studies (Wei, 2007; Guo, 2008; Dong, 2010; Zhou, 2014; Li, 2016) (Refer *4.4 Framework*). Therefore, there is a need to investigate the mistakes in stroke writing and the frequency of repeating the mistakes by non-native learners in the Chinese course as a measurement for future classroom instructions. This is crucial to ensure the accuracy of stroke writing among the non-native Chinese learners.

3. Methodology

Participants

All 50 non-Chinese Diploma students from Faculty of Business Administration who took the course of Foundation Mandarin Level 2 in Universiti Teknologi MARA (UiTM), Mukah branch were chosen for the study. These students had gone through and passed Foundation Mandarin Level 1 course in their previous semester. They had learnt the basic stroke character writing and its writing rules in their Level 1 course. Thus, it is assumed that their mistake making in character writing is not solely due to trial and error as in their initial stage of learning in Level 1. They should have acquired a basic level of understanding on the skills, mechanics and fluency in character writing. As the result, the findings of the study could be more accurate in measuring their mistake making in character writing.

Course Description

TMC101 Foundation Mandarin (Level 1)
This course is offered to UiTM diploma undergraduates who have no Mandarin background. They are taught appropriate elementary Mandarin vocabulary and grammar and learn Hanyu Pinyin (Chinese alphabet system) which enables them to read and write simple sentences, text and dialogues in Mandarin language. They learn Chinese characters and their basic strokes and the rules of Chinese characters before they start to write basic Chinese characters.

TMC 151 Foundation Mandarin (Level 2)
This course is designed specifically for UiTM diploma undergrads who have at least a credit in TMC 101 Foundation Mandarin (level 1). This course emphasizes on developing their oral communication skills. The course also requires them to write simple sentences, texts and dialogues in Hanyu Pinyin (Chinese alphabet system) besides learning the basic Chinese characters writing.

Both courses stress on step-by-step teaching method, in which the students are introduced the basic strokes of character writing, the rules of stroke writing, and then the structure of characters. The character writing exercises only starts when they have understood those basic elements of Chinese characters.

Instrument

A dictation was given to the students to identify their stroke mistakes. The test items consisted of all characters in their Foundation Mandarin Level 2 course textbook's writing exercises. There was a total of 68 characters being extracted from the exercises and they were the common characters needed to be learnt in this course.

Framework

Various studies of different contexts investigating on Chinese character stroke writing mistakes have identified the types of mistakes done by their participants (Wei, 2007; Guo, 2008; Dong, 2010; Zhou, 2014; Li, 2016). Table 1 illustrates the summary of the identified mistakes on Chinese character stroke writing.

Table1 The Mistakes of Chinese Character Stroke Writing.

Study	Types of Stroke Mistakes
Wei (2007)	• Non existing strokes in Chinese Language • Mistakes in stroke's shape and combination
Guo (2008)	• Mistakes in stroke's shape • Incorrect direction of strokes • Improper distance between 2 strokes
Dong (2010)	• Mistakes in stroke's shape • Omission and addition of strokes • Mistakes in stroke's combination • Attachment and detachment of strokes • Non-existing strokes
Zhou (2014)	• Mistakes in stroke's shape • Reciprocal strokes • Stroke's length imbalanced • Stroke's improper crossed or stopped • Improper placement of strokes • Addition and omission of strokes • Broken strokes • Improper attachment and detachment od strokes • Improper distance between strokes • Incorrect strokes that influenced by nearby strokes • Incorrect direction of strokes • Self-coined strokes
Li (2016)	• Mistakes in stroke's shape • Addition and omission of strokes • Continual stroke is crossed and vice versa • One stroke is written as 2 strokes and vice versa • Improper length of stroke • Intended stroke is substituted by a different stroke • Incorrect stroke count

With the review of the studies in Table 1, it is clear that certain types of stroke writing mistakes are repeated and they are the prominent mistakes that learners might encounter. Thus, this study adapted the repeated mistakes identified for data analysis. However, the analysis framework has been extended to 11 types of mistakes due to the existing stroke mistakes performed by the participants in this study. The analysis framework for this study is shown in Table 2. The types of mistakes are coded as to ease the task of analysis and they are useful for the descriptions of findings later.

Table2 Analysis Framework for the Types of Chinese Character Stroke Writing Mistakes.

Coding	Types of Stroke Mistakes	Stroke Mistakes Descriptions
A	Stroke Addition	Extra stroke in a character.
B	Stroke Omission	Missing stroke in a character.
C1	Stroke Misalignment	The stoke is not relatively arranged to its position.
C2	Incomplete Stroke	Unfinished/ Abandoned stroke writing.
D1	Stroke's Position	The position of where the stroke(s) meet(s) are unclear or reversed.
D2	Stroke's Length	The length of the stroke is written either too long or too short.
E	Stroke's Direction	The direction of the stroke(s) is/are written incorrectly.
F1	Broken Stroke	One stroke is written as 2 strokes in a character.
F2	Stroke Attachment	2 strokes are written as 1 stroke in a character.
G	Non-existing Stroke	Strokes that do not exist in Chinese characters.
H	Multiple Mistakes	Multiple stroke mistakes identified in a character.

Among the types of mistakes listed in Table 2, Stroke's Misalignment (C1) and Incomplete Stroke (C2) are the subcomponents of Stroke's Shape, which generally means the written strokes have been run out of shape compared to the standard character writing. On the other hand, Stroke's Position (D1) and Stroke's Length (D2) fall into the family of Wrong Combination, which means the strokes written were wrongly jointed. Meanwhile, Broken Stroke (F1) and Stroke Attachment (F1) are part of Stroke Distance, which defines the distance of stroke written that may be confused as 2 different strokes or vice versa.

4. Results and Discussion

To investigate the types of mistakes encountered by the non-native Chinese learners, all collected writing exercises were analyzed based on the framework in Table 2. They were all together 50 participants, each of them writing a total of 68 Chinese characters in their writing exercises of the course. The total number of words that were analyzed in this study was 3400 words (N). The types of mistakes and the frequency of mistake making by the same cohort of students were tabulated in Table 3.

Table 3 The Types of Mistakes Made and the Frequency of Mistake Making in Character Stroke Writing by Non-native Chinese Learners.

Coding	Types of Stroke Mistakes	Frequency of mistakes making (n)	Percentage of mistake making (%)
A	Stroke Addition	18	0.72
B	Stroke Omission	110	4.42
C1	Stroke Misalignment	683	27.46
C2	Incomplete Stroke	90	3.62
D1	Stroke's Position	712	28.63
D2	Stroke's Length	176	7.08
E	Stroke's Direction	40	1.61
F1	Broken Stroke	60	2.41
F2	Stroke Attachment	69	2.78

G	Non-existing Stroke	305	12.26
H	Multiple Mistakes	224	9.01
	TOTAL	**2487**	**100**

In general, out of 3400 words, 2487 words were written with mistakes by the non-native students, that is 73% mistakes made in this study. Although it may seem to be a common phenomenon among the beginner learners it reflects the limitation of the teaching method used. This bottom-up sequence of teaching method requires teachers to follow a strict sequence of teaching that focuses on stroke types, stroke orders and the positioning of components or strokes in characters (Shek, Ference, Wing & Elizabeth, 2007). Such teaching method relies mainly on drilling and memorization of the students. This could be laborious and boring to both teachers and students and the results of such approach might not be promising. Plus, with the influenced of their first and second phonetic language- Malay and English language, students cannot try to write a newly encountered Chinese character based on the formation of sound but solely depends on the memorization of its orthography. Thus, the progress of recognizing the more Chinese characters is slow and might be even slower in writing accurate strokes in the character.

Table 3 illustrates that the most prominent mistakes of stroke writing is Stroke Misalignment (C1) which is 28.63% from the overall mistakes made. Figure 4 demonstrates the samples of C1. Examples show that the positioning of the radicals are at the right position but they are not aligned as in the standard characters.

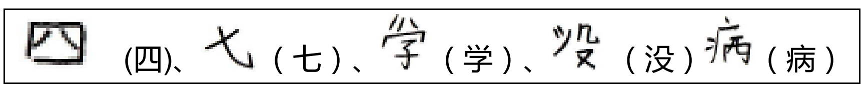


Fig. 3 Samples of Stroke Misalignment (C1).

Making mistakes in positioning and aligning the distinct radicals in a character is a common challenge among these non-native beginners (Feng, 2015). This is mainly because Chinese characters can be categorized into simple and compound characters. The visual-orthographic structure of the compound characters is proportionately higher than simple character. Thus, recognizing and writing compound characters are more challenging especially beginner learners (Liu, 2011). To add, the skill of spatial adjustment of the combination of more than one radical in a word is not needed either English or Malay writing system, thus, beginner learners are prone to make mistakes in stroke alignment (Lee, 2014).

Next, Stroke's Shape (D1) is shown to be the second most common mistake made by the participants. It is 27.46% from the overall mistakes made. Such Shape changing can be from various directions – top to bottom, left to right. Figure 5 shows the samples of D1.

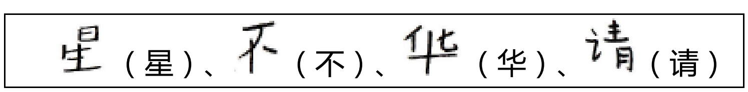


Fig. 4 Samples of Stroke's Shape (D1).

According to Feng (2015), the findings indicated that changing of shape is seemed to be a unique invention of learners in writing and it is fundamental in word recognition. In the study, such incident was apparent in first grade learners and it

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

gradually disappeared at the end of second grade. On the other hand, Norlida (2015) highlighted foreign learners have the tendency of making pen-shaped mistakes that would change the shape of the characters. Apart from that, Tan, Hoosain & Siok (1996) reported that, the nature of Chinese characters is composed of strokes that packed into a square shape with no clear initial position. Beginner learners usually would compute such configural properties and strokes in a fast and non-serial way thus it is easy for them to make mistakes in character writing. For instance, the spatial and structure of the character "华"should be written as but the non-native beginner learners might wrote it as .

The third highest mistake made was Non-existing Strokes (G), which is 12.26% from the overall mistakes made. Learners have accidentally coined stokes that is not existing in stroke writing in Chinese. Figure 5 shows the samples of G.

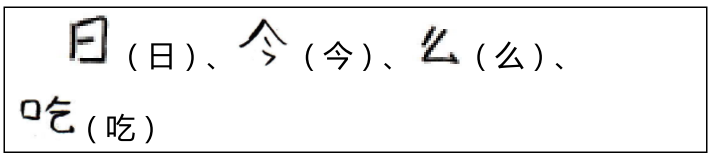


Fig. 5 Samples of Non-existing Strokes (G).

It is noticed that learners might also be influenced by the writing of punctuation mark in alphabetic writing system in writing Chinese character. For example, the stroke "丿" is written as "/ ", " フ " is written as ">". Apart from that, some mistakes are likely affected by the alphabetical writing system and has mistakenly transferred to their Chinese characters writing. For instance "七" is written into "t", "丷" into "v", the radical "阝"at the right part into"β" . The samples of this mistake seem to be similar with Norlida (2015) pen-shaped mistakes. According to Gass and Selinker (2001), learners may develop many types of interlanguage which includes creating a totally new word as one of their communication strategies to compensate their deficiency in their target language. Thus, in this case, it can be perceived that learners are trying to relate their learning with their prior knowledge to compensate their deficiency in recognition and memorization of the stroke writing. Mistakes made would be more often especially the learners' first language and second language is interrelated. However, this would accelerate the acquisition (Gass and Selinker, 2001).

5. Conclusion and Recommendations

The findings mainly show that non-native Chinese learners usually face difficulties in Stroke Misalignment and Stroke Shape. Minority of them would coin strokes that are not belonged to Chinese characters. These are common especially in the beginning stage of learning and such mistakes need to be noticed and rectified before it fossilizes in their later level of learning. Mutually is it agreed that the formation of stroke writing mistakes is mainly due to the negative transfer of writing knowledge from the participants' first language (Gass & Selinker, 2001; Norlida, 2015), unfamiliarization of the structure (Tan, Hoosain & Siok, 1996; Feng, 2015) and spatial of written Chinese character (Liu, 2011; Lee, 2014) compared to their first language. Thus, to assist learners to accelerate in stroke writing, it puts weight in the teaching and learning of stroke order learning. According to Li (2009) proved that the stress on stroke order learning could improve learners to recognize and remember the Chinese characters easier besides enhance their speed and accuracy in their writing. However, further studies need to be done to investigate the teaching methods that can effectively aid learners in stroke order learning to reduce their stroke mistakes.

References

Cain, K. (2007). Deriving word meanings from context: does explanation facilitate contextual analysis?. *Journal of Research in Reading*, *30*(4), 347-359.

Coleman, J. (1997). Residence abroad within language study, *Language Teaching*, *30*, 1-20.

Dong, F.F (2010). *Investigate and analyze in the Chinese character errors of primary and intermediate overseas students from Central Asia* (Master Thesis). Xinjiang Normal University， Xinjiang, China.

Elis, N. (1995). Consciousness in second language acquisition: A review of field studies and laboratory experiment*. Language Awareness, 4*, 123-146.

Fei, J.C., Huang, Y.Y. & Zhang, J.X. (eds.) 费锦昌，黄佑源，张静贤编著 (1992). 汉字写法规范字典 [*A dictionary for Chinese characters handwriting standardization*]. Shanghai: Shanghai Dictionaries Press.

Feng, X.W. (2015). Analysis of Development Patterns in Writing Acquisition of Chinese Studies. *European Scientific Journal,1*, 1-9.

Freed, B. F. (1995). What makes us think that students who study abroad become fluent? In B. F. Freed (Ed.), *Second language acquisition in a study abroad context* (pp. 123-148). Philadelphia: John Benjamin's.

Freed, B. F. (1998). An overview of issue and research in language learning in a study abroad setting. *Frontiers: the Interdisciplinary Journal of Study Abroad, 4*, 31-62.

Gass, S., & Selinker, L. (2001). *Second Language Acquisition* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum & Associates.

Guan, C. Q., Liu, Y., Chan, D. H. L., Ye, F. F., & Perfetti, C. A. (2011). Writing Strenghtens Orthography and Alphabetic-Coding Strengthens Phonology in Learning to Read Chinese. *Journal of Educational Psychology, 103*(3), 509-522.

Guo, S.L.(2008). The Features of Chinese Character Stroke and Foreign Learners' errors of Chinese Character Stroke*. Journal of college of Chinese Language and Culture of Jinan University*, 4, 63-69.

Ho, C. S., Ng, T., & Ng, W. (2003). A "Radical" Approach to Reading Development in Chinese: The Role of Semantic Radicals and Phonetic Radicals. *Journal of Literacy Research, 35*(3), 849-878.

Hoe, F. T. (2014). GATT Translation Method for Elementary Mandarin Learners. *Journal of Creative practices in Language Learning and Teaching (CPLT)*, *2*(1). 44-52.

Jenkins, J. R., Stein, M. L., & Wysocki, K. (1984). Learning vocabulary through reading. *American Educational Research Journal*, *21*(4), 767-787.

Ke, C.R. (1998). Effects of Language Background On the Learning of Chinese Characters among Foreign Language students. *Foreign Langugae Annals, 31*(1), 91-102.

Koda, K. (2004). *Insights into Second Language Reading*. Cambridge: Cambridge University Press.

Lee, L.李丽 (2014). 对外汉字教学之留学生汉字书写偏误研究 [Teaching Chinese As A Foreign Language: A Study On Foreign Students' Chinese Character Writing Errors]. *Journal of Inner Mogolia Normal University (Education Science Edition*, *3*, 102-104.

Li Xiangeng. (2009). *Qiantan Bishun Bihua Jiaoxue De Yichu 浅谈笔顺笔画教学的益处*.Retrieved 2 September , 2014 from: http://www.5dhz.com/hanziliushu/wenzhangtuijian/2009-05-06/248.htm

Li, J. (2016). 俄罗斯学生汉字笔顺和笔画偏误分析及教学对策[An Analysis On Chinese Stroke And Stroke Order Errors Among Russian Students And Teaching Strategies]. *Journal of Language and Literature Studies*, （6）, 87-91.

Liu, L. (2014). Language proficiency, reading development, and learning context. *Frontiers: The Interdisciplinary Journal of Study Abroad, 24*, 73-92.

Liu, P. D., Chung, K. K. H., McBride-Chang, C., & Tong, X. (2010). Holistic versus Analytic Processing: Evidence for a Different Approach to Processing Chinese at the Word and Character Levels in Chinese Children. *Journal of Experimental Chinese Psychology, 107*(4), 466-478.

Liu, Y. F.刘艳芳 (2011). 欧美初学者汉字书写的偏误及成因分析[An Analysis of Mistakes and Causes in Writing Chinese Characters By European Beginners].*Journal of Shanxi Teachers University*，*3*，134-135.

McGinnis, S. (1995). Students'' goals and approaches. In M. Chu. (Ed.) *Mapping the course of Chinese language field: Chinese Language Teachers Association Monograph Series, Vol. III* (pp.151-168). Kalamazoo, MI: Chinese Language Teachers Association.

Nancy, L., Ki, W.W., Chung, A.L.S., Ko, P.Y. & Lam, H.C. (1998). Children's stroke sequence errors in writing Chinese characters. *Reading and Writing: An Interdisciplinary Journal, 10*. 267-282.

Norlida, R. (2015). Foreign Students' Common Problems In Writing Chinese Characters. *International Journal of East Asian Studies, 4*(1), 63-78.

Schmidt, R. (2008). The role of consciousness in second language learning. *Applied Linguistics*, *11*(2), 129-158.

Shek, K.T., Ference, M., Wing, W.K., & Elizabeth, K.Y.L. (2007). An Integrative Perceptual Approach For Teaching Chinese Characters. *Instructional Science, 35,* 375-406.

Su, X. (2010). *Radical Awareness among Chinese-as-a-Foreign-Language Learners.* Ph.D., Florida State University.

Sung, K.Y. (2012). A study on Chinese-character learning strategies and character learning performance among Ameican learners of Chinese. *Chinese as a Second Language Research, 1*(2), 193-210.

Tan, L.H., Hoosain, R.& Siok,W.W.T. (1996). Activation of phonological codes before access to character meaning in written Chinese, *Journal of Experimental Psychology: Learning, Memory, and Cognition* 22: 865–882.

Wang, S.H.C. (1998). A study on the Learning and Teaching of Hanzi-Chinese Characters. *Working papers in Educational Linguistics (WPEL), 14*(1), 69-101.

Wei, B. (2014). The Origin and Evolvement of Chinese Characters. *Gdańskie Studia Azji Wschodniej*, (5).

Wei, W. C.尉万传 (2007). 东南亚华裔留学生汉字偏误综合考察报告[An Investigation On Character Writing Errors Among Foreign Students]. Journal of Yunnan Normal University: *Teaching and Reseach of Chinese as A Foreign Language*, 6, 70-74.

Yin, J. (2003). Methods used by American college students in memorizing Chinese characters. *Journal of the Chinese Language Teachers Association*, 38(3), 69–90.

Zhou, W.H. (2014). 泰国初级阶段学生汉字书写偏误分析 [Error Analysis of Chinese Character Writing Among Chinese Beginner Learners in Thailand]. Data of Culture and Education, (26), 31-34.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

The Effects of Job Satisfaction, Burnout and Organizational Culture on Auditor's Turnover Intention

Norul Akma Mansor[1], Rohana Othman[2], Norliana Omar[3], Noor Saatila Mohd Isa[4], Liyana Ab Rahman[5]

[1]Lecturer, Faculty of Accountancy, Universiti Teknologi MARA, Tapah Campus, Tapah Road, 35400, Perak, Malaysia
norul195@perak.uitm.edu.my

[2]Lecturer, Accounting Research Institute, Universiti Teknologi MARA Shah Alam, 40450, Shah Alam, Selangor, Malaysia
rohana799@salam.uitm.edu.my

[3]Lecturer, Faculty of Accountancy, Universiti Teknologi MARA, Tapah Campus, Tapah Road, 35400, Perak, Malaysia
norli793@perak.uitm.edu.my

[4]Lecturer, Faculty of Accountancy, Universiti Teknologi MARA, Tapah Campus, Tapah Road, 35400, Perak, Malaysia
noors464@perak.uitm.edu.my

[5]Lecturer, Faculty of Accountancy, Universiti Teknologi MARA, Tapah Campus, Tapah Road, 35400, Perak, Malaysia
liyana748@perak.uitm.edu.my

Abstract

This study looks at the impacts of job satisfaction, burnout and organizational culture on auditor's turnover intention in public accounting firms. Job satisfaction has been classified as working environment, supervision and promotion while burnout is classified as emotional exhaustion, lack of personal accomplishment and depersonalization. For organizational culture, this factor has been further categorized into accomplishment/ innovation/ competence (AIC), cooperation/ supportiveness/ responsiveness (CSR) and emphasis on rewards (ER). A sum of 299 external auditors were chosen as the sample of the study. The multiple regression analysis results reveal that job satisfaction and burnout have significant effects on turnover intention while organizational culture does not have any critical association with turnover intention. While breaking down the factors by components, it was discovered that the working environment, promotion and ER are significant factors in clarifying the auditor's turnover intention. The findings of this study give imperative ramifications to both research and practice, especially for public accounting firms in tending to the issue of the high turnover rate among the auditors.

Keywords: Job Satisfaction, Burnout, Organizational Culture, Turnover Intention, Auditor

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

1. Introduction

Employee turnover intention has been reflected as a serious challenge in numerous professional areas including public accounting firms. Nowadays, auditor has an important role in the organization since they are individuals who evaluate and help to increase the users' confidence by issuing an opinion on the truth and fairness of presentation of the firm's financial statements. Unfortunately, more than half of auditors who had chosen auditing as their first profession changed their career within three years (Hiltebeitel & Leauby, 2001) and to substitute them, it can charge a company as much as 150% of the former employee's salary (Omar & Ahmad, 2014). The high turnover rates among employees pose significant negative effect to the organization since it will cause significant expenses related to hiring of new employees, wasted training cost, loss of experienced personnel, decrease in productivity and experience low employee morale. Even with this serious potential threat to the quality of service of employees, business management presently still have lack of educated information on retaining its skilled and professional staff (Lightfoot, 2014).

Based on previous literatures, there are several factors that correlate with employee intentions to leave. One of the vital determinants of employee turnover and profession change is job satisfaction (Chi, Hughen, Lin & Lisic, 2013; Nouri & Parker, 2013; Lee, Burch, & Mitchell, 2014). Sukriket (2015) and Habib, Aslam, Hussain, Yasmeen and Ibrahim (2014) concluded that there was an inverse correlation between job satisfaction and turnover, in which dissatisfied employees are more probable to leave their jobs than employees who are satisfied. In the perspective of auditing profession, Yee, Lee, Yeung and Cheng (2013) exposed that auditor loyalty is significantly influenced by job satisfaction where auditors who know the importance of their work will better resist job changes. Employee job satisfaction is also reliant on several organizational factors, such as the employee's compensation, working environment, the organizational environment, and the employee's experience of the leadership or supervision (Saeed, Mussawar, Lodhi, Iqbal & Nayab, 2013).

Burnout syndrome also is reported to have a number of critical effects in many occupational groups which subsequently caused employees to refuse to stay in an organization. When experiencing burnout, individuals will lose their drive to work, which caused the reduction in their quality of services. In public accounting firms, auditors are among those professionals who often suffer high workload requirements, extreme physical working conditions, time pressure and emotional demands due to the nature of audit work. Ordinarily, if the individuals do not have the capability to cope with excessive workload, it may lead to work stress known as burnout. Seyrek and Turan (2017) claimed that working long hours and under stress may lead to high levels of burnout in employees and consequently result negative impact to the employee's family life. The conflict between demands of work and family may negatively affect the performance of the employee and increase the turnover intention.

Additionally, organizational culture has been widely established as significant driver in the literature related with turnover intention. Development of an organizational culture is very essential in order to sustain the firms' position in the market since it will provide support and bring continuous enhancement to an organization. Organizational culture universally known as the values, principles and basic assumptions which help to boost employee involvement in order to achieve organizational success. Warren, Gaspar, and

Laufer (2014) revealed that employee performance and intentions will be greatly affected when they do not clearly understand the culture of an organization. In the context of auditing work environment, poor adaption to an organizational culture by external auditors will affect the effectiveness and performance of a public accounting firm as a whole (Choi, Jang, Park & Lee , 2014 ; Cronley & Kim , 2017).

Several studies have also provided empirical support for employee turnover intention in Malaysia as well as other countries. Recent study by Kong, Lai, Lee, Ling and Loh (2017) have highlighted on this issue in the Malaysian context, but only concentrated on the factors that affecting the turnover intention of the lecturers in the private university in Malaysia which mainly focus on the organizational commitment, training and development program, job stress and pay and reward satisfaction. Similarly, Chan, Chok, Lae, Yam and Lee (2017) also has emphasized on predictors of employee‘s turnover intention but from different scopes which are perceived organizational support (POS), job satisfaction, leader-member exchange (LMX) and work-life balance in Malaysian manufacturing industry. Nevertheless, there has been no studies conducted with the combination of these following factors; job satisfaction, burnout and organizational culture in the context of external auditors. Hence, this study offers a conceptual framework to present empirical evidence as well as to bring forward these issues for further global discussions. Therefore, the main objective of this study is:

- to examine the relationship between job satisfaction and turnover intention of the external auditors;
- to examine the relationship between burnout and turnover intention of the external auditors;
- to examine the relationship between organizational culture and turnover intention of the external auditors.

2. Literature Review

2.1 Job Satisfaction

Job satisfaction has been defined by previous researchers in different ways. Weiss (2002) defined job satisfaction as a judgment which is either positive or negative towards one's job or job situation. Extensively, researchers have tested job satisfaction with its predictors as well as its consequences. The study conducted by Droussiotis and Austin (2007) revealed that self-fulfillment (pay, highly skilled subordinates, opportunities for personal growth and advancement), independence and job environment are the most significant factors that contribute to job satisfaction among managers in Cyprus. On the other hand, Kalamawei, Abeki and Dienyi (2016) reported that sources of job satisfaction among health workers in Southern Nigeria are determined by job security, hours of work, and relationship with co-workers, supervisors and subordinates. Most recently, Kuzey (2018) found that management's attitude, pay/reward, job security and colleagues contributed to job satisfaction among health care workers.

However, there are situations that employees feel dissatisfied with his current employment. As reported by Yung-Tai and Chen-Hua (2010), they found out that stress represented by ambiguity and conflict contributes to lower job satisfaction of employees of Taiwanese companies. It is further added by Charoensukmongkol, Moqbel and Gutierrez-Wirsching (2016) who proposed that burnouts which represented by emotional exhaustion, depersonalization and perceived lack of personal accomplishment also significantly reduce employees job satisfaction. These predictors of job dissatisfaction may lead to absenteeism, conflict, low quality and quantity of work and to be worst it will increase turnover among employees (Kalamawei, Abeki & Dienyi, 2016 and Carolina, Sílvio, & Lúcia, 2018). Further, Jacob et al. (2011) identified those Big Five traits (Agreeableness/Teamwork, Conscientiousness, Emotional Stability, Extraversion, and Openness) and four narrow traits (Assertiveness, Customer-Service Orientation, Optimism, and Work Drive) were significantly correlated with career satisfaction of 684 accounting professionals.

2.2 Burnout

A growing number of studies concerning burnout keep increasing from year to year since 1980s (Yorulmaz & Altınkurt, 2018). As reported by Heinemann and Heinemann (2017), this is due to major socioeconomic challenges where people suffer ever-increasing pressure which mostly comes from workplace. Burnout was first introduced in 1974 by Herbert Freudenberger who then described burnout as a “state of fatigue or frustration brought about by devotion to a cause, way of life, or relationship that failed to produce the expected reward” (Freudenberger, 1980). According to Maslach, Jackson, and Leiter (1996), three key syndromes of burnout is due to chronic exhaustion, cynicism, and a lack of personal accomplishment.

As burnout creates many problems, a lot of studies have been conducted to examine the antecedents of burnout. By using auditors as samples of the study, Lee, Lim, Yap, and Tam (2010) found out that there are four plausible causes of work-related stress which are role conflict, role ambiguity, work overload, and time pressure. Another study conducted by Utami and Nahartyo (2013) revealed that burnout suffered by auditors who work at public accounting firms in Yogyakarta, Semarang, Jakarta and Palembang influenced by role conflict and role overload. However, role ambiguity did not give any significant effect on the auditor’s burnout. Recent study by Yorulmaz and Altınkurt (2018) reported that gender, marital status, subject matter, educational status, and seniority had a very low effects on Turkey teacher’s burnout.

The implications of burnout cannot be underestimated as chronic burnout is able to weaken the gain cycle of daily job resources, daily work engagement, and daily job crafting (Bakker & Costa, 2014). Papathanasiou (2015) stated that burnout could impose negative effect on interpersonal and family relations. Current study conducted by Salvagioni et al. (2017) found that burnout contributes physical, psychological and occupational consequences to the workers. In terms of physical consequences, burnout was a significant predictor of diabetes, coronary heart disease, musculoskeletal pain, prolonged fatigue, headaches, respiratory infections and gastrointestinal problems. Turning to psychological consequences, insomnia and depressive symptoms are the significant effect of burnout. Finally, among the occupational consequences of burnout are job dissatisfaction, absenteeism and presenteeism.

2.3 Organizational Culture

The awareness towards organizational culture has become more prominent from early 1980s. Schein (1983) defines organizational culture as a set of assumptions by a group of people, which they adhere to solve problems that may arise within or outside the organization. These assumptions have become a source of reference for what is believed acceptable or unacceptable behavior in an organization. Most of the researches conducted worldwide provided the substantial importance of organizational culture that will impact employees' commitment and retention in an organization.

Carmeli (2005) had examined the influence of five dimensions of organizational culture that were job challenge, communication, trust, innovation and social cohesiveness with the employees' withdrawal intentions and behavior. Regression analyses indicated that only an organizational culture that provides challenging job will diminish employees' absenteeism and withdrawal intentions from the occupation, job and the organization. In addition, positive organizational culture would increase the level of employees' performance by having individuals' sense of pride and sense of identification of one's organization (Pierce & Rodgers, 2004). It also will enhance employee's commitment, job satisfaction and decrease employees' retention, automatically the performance of the organization will increase (Habib et al., 2014). Appelbaum, et al. (2004) stated that, continuance commitment resulted the employee will not resign from the organization and will not response to dissatisfaction and make sure that they continuously stay with the organization. This is also proven by Faizan & Zehra (2016) which found out that employees with strong organizational culture becomes to show higher commitment towards the organization and also increased job satisfaction within the health care sector.

2.4 Turnover Intention

Turnover intention is defined as the possibility that an employee will leave his or her current employment within a certain time period. According to Park and Kim (2009), employees' turnover intentions refer to mere thoughts of quitting the organization and statements by the worker that he or she wants to leave the organization. Various researches have studied about the factors contributing to turnover intention amongst employees, such as job satisfaction, work stress, types of institution, age (Lu, Hu, Huang, et al., 2017), authoritarian organizational culture (Kim, Kim & Rhee, 2017), bureaucratic behavior (Alzayed & Murshid, 2017) and business ethical value (Abzari, Kabiripour & Saeidi, 2015).

Human capital is essential to the development of an organization. A low level of employee turnover is acceptable in any profession, in that it offsets potential stagnancy, eliminates low performers, and encourages innovation with the entry of new comers. However, there is going to be a loss for organization if many employees resigned from the job. Thus, this could impair the performance of the organization in the long run especially if they are skilled-employees. High levels of employee turnover lead to not only low performance but also ineffectiveness in organizations and result in a huge number of costs and negative outcomes (Ingersoll & Smith, 2003). This argument further supported by Park and Shaw (2013) who claimed that there are significant and negative association between total turnover rates and organizational performance.

3. Research Methodology

3.1 Theory of Planned Behavior

In this study, turnover intention is used instead of actual turnover as this is consistent with the Theory of Planned Behavior (TPB) which holds that behavioral intention is a good predictor of actual behavior. This theory has been developed by Ajzen (1985) and found to be useful in predicting a wide range of behavior (Madden et al., 1992). This theory also suggests that only specific attitudes toward the behavior can be expected to predict that behavior. TPB has been successfully applied to many studies in predicting turnover such as it is proven that turnover intention is one of the strongest predictors and an immediate precursor of employee turnover (Griffeth et al, 2000). This is also consistent with the study done by Breukelen at al. (2004) who have suggested that intentions offer a better explanation of turnover because they encompass one's perception and judgment.

3.2 Hypotheses Development

3.2.1 The Effect of Job Satisfaction on Auditor's Turnover Intention

Researchers have discovered that employees' satisfaction and dedication to an organization will affect employee turnover rates. Research done by Alzayed and Murshid (2017) showed that turnover intention in the public sector in Kuwait is merely because employees have not been rewarded appropriately as well as having a non-supportive working environment. Another research done by Roche and Haar (2013) stated that employees need intrinsic rewards such as autonomy, competence and relatedness to increase motivation that consequently will help to promote creativity and improve employees' competencies. Thus, these studies support the negative association between job satisfaction and individual's turnover intention. Therefore, based on the above arguments, the following hypothesis has come out:

H1: There is a negative relationship between job satisfaction and auditor's turnover intention.
H1a: There is a negative relationship between satisfaction with work environment and auditor's turnover intention.
H1b: There is a negative relationship between satisfaction with supervision and auditor's turnover intention.
H1c: There is a negative relationship between satisfaction with promotion and auditor's turnover intention.

3.2.2 The Effect of Burnout on Auditor's Turnover Intention

Past researchers believed that workers who feel burned out and frustrated with their jobs are more likely to have higher turnover intentions. Ching-Fu and Ting (2014) confirmed that burnout is one of the most significant variables that could predict turnover intention which in turn lead to negative impact on organizational efficiency. Additionally, Scanlan and Still (2013) revealed that burnout can significantly reduce job satisfaction and increase tendency of turnover among occupational therapists working in mental health hospital. This is further verified by Altin, Kurtoglu and Kartal (2017) who claimed that

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

emotional exhaustion, depersonalization and reduction of personal achievement are considered as components of burnout. Hence, the following hypothesis is offered:

H2: There is a positive relationship between burnout and auditor's turnover intention.
H2a: There is a positive relationship between emotional exhaustion and auditor's turnover intention.
H2b: There is a positive relationship between lack of personal accomplishment and auditor's turnover intention.
H2c: There is a positive relationship between depersonalization and auditor's turnover intention.

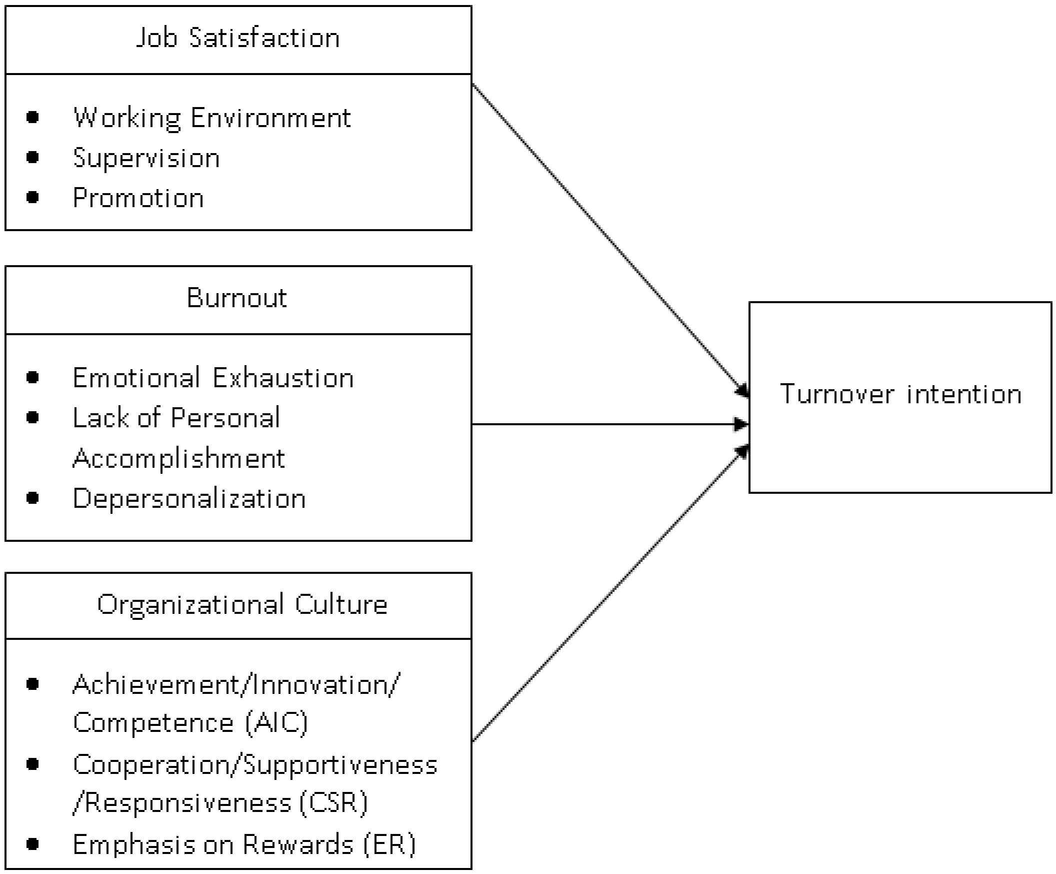
3.2.3 The Effect of Organizational Culture on Auditor's Turnover Intention

Prior studies have witnessed that different types of culture exert different direct effects on turnover intention (Park & Kim, 2009). Whether it is low or high employee turnover intention, it would depend on the types of culture posit by the organization that is whether it is positive or negative culture (Shim, 2010). Choi et al. (2014) verified that a positive organizational culture or atmosphere is significantly needed in order to raise job satisfaction and reduce employee departures from an organization. Alzayed & Murshid (2017) agreed that social and supervisory support are the attributes of positive organizational culture that involve concern, respect, and treatment that an employee is hoping for in the organization. Therefore, the following hypothesis can be developed:

H3: There is a negative relationship between organizational culture and auditor's turnover intention.
H3a: There is a negative relationship between achievement/ innovation/ competence (AIC) and auditor's turnover intention.
H3b: There is a negative relationship between cooperation/ supportiveness/ responsiveness (CSR) and auditor's turnover intention.
H3c: There is a negative relationship between emphasis on rewards (ER) and auditor's turnover intention.

The research framework to be adopted by this study is shown in Figure 1.

Figure 1: The Relationship between Job Satisfaction, Burnout, Organizational Culture and Turnover Intention



3.2 Sample Selection and Data Collection

The study only focuses on the external auditors in Klang Valley as this area contributes the largest number of public accounting firms in Malaysia. Based on MIA Annual Report 2017, the total number of public accounting firms in Klang Valley represent 54.7% of all public accounting firms in Malaysia. The total population of external auditors in Klang Valley was approximately 15,000. As suggested by Krejcie and Morgan (1970), the sample size of total population of 15,000 should be within 375. 400 questionnaires have been distributed to the external auditors with the final number of usable questionnaires in this study was 299 which represented a response rate of 74.75%. This response rate is sufficient as according to Aaker, Kumar and Day (2001), the effective response rate was approximately 24%.

3.3 Measurement of Variable

The turnover intention was measured by three items that are adapted from previous studies by Chiu and Francesco (2003); Jenkins (1993) and Kransz, Koslowsky, Shalom and Elyakim (1995). The respondents are asked to indicate their responses on a four-point Likert scale with endpoints of (1) strongly disagree to (4) strongly agree. Job satisfaction was measured by twelve items from the employee satisfaction inventory

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

(ESI) (Koustelios & Bagiatis, 1997). The 12 items measure three aspects of a job that are working environment (eight items); supervision (two items) and promotion (two items). The items of job satisfaction are measured on a scale ranging from (1) strongly disagree to (4) strongly agree. Burnout was measured by 15 items from Maslach burnout inventory (MBI) (Maslach, Jackson & Leiter, 1996). These items measure three aspects of burnout that are emotional exhaustion (six items), depersonalization (four items) and lack of personal accomplishment (five items). All 15 items are measured based on a seven-point Likert scale, ranging from 1 (never) to 7 (every day). Organizational culture was measured by using 14 scaled items used by Shim (2010) that are taken from the workforce retention study. Each survey items were measured based on four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Organizational culture consists of three attributes that are achievement/ innovation/ competence (AIC) (four items), cooperation/ supportiveness/ responsiveness (CSR) (five items) and emphasis on rewards (ER) (five items).

4. Data Analysis, Results and Discussions

4.1 Descriptive Analysis

Table 1 shows the demographic characteristics of the respondents which consists of external auditors in Klang Valley. The majority of the respondents falls into the age category of 20-30 years (95.3%). This is followed by the age category of 31- 40 years (2.0%). In terms of gender, most of the respondents are females (57.9%) and the rest are male respondents (22.4%). For annual income, the majority of the respondents have annual income less than RM30,000 (66.6%) and only 27.8% have annual income between RM30,000 to RM40,000. The respondents also come from different types of public accounting firms whereby, 33.1% of them are from small firms, 42.8% from medium firms and 24.1% from big firms. For organizational tenure, majority of them have served in the current firm for 2 years and less (75.6%). Only 22.7% of them have served more than 2 years up to 10 years and 1.3% have served more than 10 years.

Table 1: Demographic Characteristic of Respondents' Background

	Description	Frequency	Percentage
Age	Under 20 years	2	0.7
	20 - 30 years	285	95.3
	31 - 40 years	6	2.0
	Above 40 years	5	1.7
	Missing value	1	0.3
	Total	299	100.0
Gender	Male	67	22.4
	Female	173	57.9
	Missing value	59	19.7
	Total	299	100.0
Annual Income	Less than RM30,000	199	66.6
	RM30,000 - RM40,000	83	27.8
	RM41,000 - RM50,000	9	3.0
	RM51,000 - RM60,000	1	0.3

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

	Over RM60,000	5	1.7
	Missing value	2	0.7
	Total	299	100.0
Type of public accounting firms	Small firms	99	33.1
	Medium firms	128	42.8
	Big firms	72	24.1
	Total	299	100.0
Organizational Tenure	2 years or less	226	75.6
	More than 2 years up to 10 years	68	22.7
	More than 10 years	4	1.3
	Missing value	1	0.3
	Total	299	100.0

4.2 Reliability Analysis

In order to measure the reliability or internal consistency of scale items used in the survey, Cronbach's coefficient alpha was employed. The Cronbach's coefficient alpha value varies between 0 and 1. The closer the alpha to 1, the greater the internal consistency of items in the instrument will be. According to Hair et al. (2007), a scale is reliable if the coefficient value is more than 0.6. Table 2 shows the Cronbach's coefficient alpha for each measure. The measures for all variables in this study are found to be reliable since all the coefficient alpha values are greater than 0.6.

Table 2: Results for Reliability Analysis

Variable	Number of Items	Cronbach's Coefficient Alpha
Job Satisfaction	12	0.854
Burnout	15	0.820
Organizational Culture	14	0.858
Turnover Intention	3	0.881

4.3 Factor Analysis

Factor analysis was performed to reduce the complexity of the components and to determine whether the questionnaire items were tapped into the same construct. A principal component analysis (PCA) was conducted on all the items of variables with orthogonal rotation (varimax). Based on the Table 3 below, the Kaiser-Meyer-Olkin measure verifies the sampling adequacy for the analysis whereby, KMO = 0.847, 0.847, 0.812 and 0.7126 for job satisfaction, burnout, organizational culture and turnover intention respectively. These values are considered as good since according to Field (2009) the acceptable value for KMO must be greater than 0.5.

Table 3: Results for Factor Analysis

Variable	KMO	Factor Variance
Job Satisfaction	0.847	60.016%
Burnout	0.847	61.167%

Organizational Culture	0.812	57.486%
Turnover Intention	0.726	80.800%

4.4 Multiple Regression Analysis

Table 4 reports the results for multiple regression analysis for overall job satisfaction, burnout and organizational culture with the turnover intention. Based on this table, when these three independent variables are entered into the model, the Adjusted R^2 is 0.215. This indicates that 21.5% of the variation in turnover intention are explained by the job satisfaction, burnout and organizational culture, while the balance, 78.5% are explained by the other factors which are not considered in this study. The regression model is significant at the 0.01 level with F-value is 28.133. When analyzing for each of the independent variables, both job satisfaction and burnout have significant relationship with turnover intention. Job satisfaction has significant negative relationship with turnover intention ($t = -4.341$, $p < 0.01$). In contrast, burnout is found to be significantly and positively related to turnover intention ($t = 3.519$, $p < 0.01$). However, for organizational culture, it does not show any significant effect on turnover intention.

Table 4: Results for Multiple Regression Analysis

	Beta	Std. Error	t-ratio	Sig.
(Constant)	4.252	0.499	8.526	0.000
Job Satisfaction	-0.698	0.161	-4.341	0.000***
Burnout	0.176	0.050	3.519	0.001***
Organizational Culture	-0.095	0.175	-0.539	0.590
N	299			
R^2	0.222			
Adjusted R^2	0.215			
F-Value	28.133			
(Sig.value)	(0.000)***			

*** Significant at the 0.01 level (2-tailed test).

The study has performed further analysis in order to know the impact of each element of independent variables towards the dependent variable. Table 5 shows the results for multiple regression analysis by components for job satisfaction, burnout and organizational culture. Out of three components of job satisfaction, there are two elements which are working environment ($t = -2.582$, $p < 0.01$) and promotion ($t = -2.111$, $p < 0.05$) which have significant negative effects on turnover intention. Another element that is supervision is not significant with turnover intention. Meanwhile, all the components of burnout that are emotional exhaustion, lack of personal accomplishment and depersonalization do not have any significant effects on turnover intention. Furthermore, it was found that out of three elements of organizational culture, emphasis on rewards (ER) is found to be significantly and negatively related to turnover intention ($t = -2.946$, $p < 0.01$). The other two elements that are achievement/ innovation/ competence (AIC) and cooperation/ supportiveness/ responsiveness (CSR) are not related to turnover intention.

Table 5: Results for Multiple Regression Analysis by Components

	Beta	Std. Error	t-ratio	Sig.
(Constant)	4.003	0.500	7.999	0.000
Job Satisfaction:				
Working Environment	-0.341	0.132	-2.582	0.010***
Supervision	0.037	0.093	0.400	0.690
Promotion	-0.194	0.092	-2.111	0.036**
Burnout:				
Emotional Exhaustion	0.057	0.037	1.530	0.127
Lack of Personal Accomplishment	0.022	0.031	0.720	0.472
Depersonalization	0.060	0.037	1.620	0.106
Organizational Culture:				
Achievement (AIC)	-0.086	0.132	-0.652	0.515
Cooperation (CSR)	0.173	0.133	1.304	0.193
Emphasis on Rewards (ER)	-0.280	0.095	-2.946	0.003***
N	299			
R^2	0.268			
Adjusted R^2	0.245			
F-Value	11.769			
(Sig.value)	(0.000)***			

**Significant at the 0.05 level (2-tailed test).
*** Significant at the 0.01 level (2-tailed test).

4.5 Discussion

The findings show that there is a significant negative relationship between job satisfaction and turnover intention among the external auditors. This result is found to be similar to those reported in previous studies (Alzayed & Murshid, 2017; Sukriket, 2015; Habib et al., 2014). Besides that, among the three elements of job satisfaction, it was found that working environment and promotion give significant negative effects on auditor's turnover intention. This result is also consistent from the previous studies (Tian-Foreman, 2009). Therefore, this provides support for H1, H1a and H1c. However, for satisfaction with supervision, it has come to knowledge that it is not found to be significant with turnover intention in this study and because of this, H1b is rejected. The results give an indication that the higher the job satisfaction among the external auditors, the lower their turnover intention would be and vice versa. This is due to the fact that satisfied employees would be happy with their job and work environment and more productive as well as perform better than dissatisfied employees (Masri, 2009). Thus, satisfaction with the current job will influence external auditors to stay longer with their current job and firms.

With regards to the H2, it is also supported where the results revealed that burnout has a significant positive relationship with auditor's turnover intention. Thus, burnout also has been recognized as one of the strong predictors for turnover intention other than job satisfaction (Altin et al., 2017; Ching-Fu & Ting , 2014; Scanlan & Still, 2013). Conversely, it reveals that none of the burnout components have a significant effect on turnover intention. This is similar with what has been reported by Malik et al. (2010). Hence, H2a, H2b and H2c are rejected in this study. The positive relationship between burnout and turnover intention in this study suggest that when the external auditors experience high burnout, the turnover intention among them also would be higher and vice versa.

In relation to the organizational culture, initially it was found that there is no significant relationship with turnover intention. This is consistent with the study conducted by Hsu (2009). Thus, H3 is rejected. Nevertheless, when the researcher analyzed the organizational culture into its elements, the multiple regression analysis showed that among the three variables in organizational culture, emphasis on rewards (ER) is a negative and statistically significant predictor to auditor's turnover intention (Shim, 2010). Therefore, it can be considered that H3c is supported while the other two hypotheses, H3a and H3b are not supported. The significant negative relationship between ER and turnover intention suggest that external auditors seemed to be more influenced by the positive organizational culture that emphasizes on rewards rather than positive organizational culture that have higher levels of AIC and CSR.

5. Conclusion

In summary, empirical findings indicate that job satisfaction, burnout as well as organizational culture are the important factors in explaining the turnover intention among the external auditors. The findings of this study provide important implications for both research and practice since this study incorporates the relationship between job satisfaction, burnout and organizational culture with auditor's turnover intention. For researchers, this study provides an integrated conceptual framework from which to learn human behaviors and attitudes particularly among the external auditors. It is hoped that the findings of this study would foster the researchers to further examine the effects of other variables towards the turnover intention.

For managers, the results of this study suggest that public accounting firms can benefit by devising policies and practices to encourage a sense of professionalism. In this case, human resource policies should be designed in such a way that management should better appreciate factors that predict overall job satisfaction and dissatisfaction among the external auditors in order to retain the talented professionals. The results in this study indicate that auditors are more concerned for the firms that could provide them with good working environment, better job promotion and stability rather than just focus on supervision.

Apart from this, manager and partners should focus on how to reduce auditors' burnout. Some suggestions include providing opportunity for auditors to discuss difficulties in doing their job; encouraging communications throughout the organization; offering consultations for auditors to address secondary trauma and other emotional issues that will influence their work; providing adequate training and education programs for building highly qualified and competent workers; promoting participative management and also establishing flexible work schedules for the auditors (Shim, 2010).

In addition, the results of this study also have implications on public accounting firms in terms of developing a profile of positive organizational culture as one of the ways to control and manage the auditors' turnover intention. The study encourages the firms to assess and strengthen the rewards systems. As highlighted by Shim (2010), there are several ways to construct a positive organizational culture in public accounting firms which include specifying clearer and more effective incentives, providing rewards for auditors who do their job well, frequently recognizing high-performance auditors and also encouraging auditors to better understand how their accomplishments can contribute to the organizational goals.

Corresponding Author

Norul Akma Mansor, Faculty of Accountancy, Universiti Teknologi MARA, Perak Branch, Tapah Campus, 35400, Tapah Road, Perak, Malaysia, norul195@perak.uitm.edu.my.

References

Aaker, D. A., Kumar, V., & Day, G. S. (2001). *Marketing Research.* John Wiley and Sons, New York.

Abzari, M., Kabiripour, V. & Saeidi, A. (2015), The Effect of Business Ethical Values on Turnover Intention: Mediating Role of Person-organization Fit Dimensions. The Case of Iranian Teachers in Public School, *Academic Journal of Economic Studies*, Vol. 1, No.1, March 2015, pp. 65–81 ISSN 2393-4913.

Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In J. Kuhland and J. Beckman (eds.). *Action-control: From Cognitions to Behavior* (pp. 11-39). Springer, Heidelberg.

Altin, Ş., Kurtoglu, R., & Kartal, C. (2017). Analysis of the Relationship between Job Satisfaction, Burnout, Occupational Ethics Perceptions and Organizational Commitment of Salespersons in the Retail Sector by Structural Equation Model. *International Journal*, *5*(3).

Appealbaoum, S., Bartolomucii, No, Beaumier, E., Boulanger, J., Corrigan, r., Dore, I., Girard, C., & Serroni, C. (2004). Organizational Citizenship behaviour a case study of culture, leadership and trust. *Management Decision*, 42 (1), 13-40.

Bakker, A. B., & Costa, P. L. (2014). Chronic job burnout and daily functioning: A theoretical Burnout Research, 1(3), 112-119. DOI: 10.1016/j.burn.2014.04.003

Breukelen, W.V., Vlist, R.V.D and Steensma, H. (2004). Voluntary employee turnover: combining variables from the 'traditional' turnover literature with the theory of planned behavior. *Journal of Organizational Behavior,* 25, 893-914.

Carmeli, A. (2005). The relationship between organizational culture and withdrawal intentions of behavior. *International Journal of Manpower,* 26(2), 177-195.

Carolina, M. D. R. L., Sílvio L. d. P., & Lúcia, M. B. d. O., (2018). Organizational Commitment, Job Satisfaction and Their Possible Influences on Intent to Turnover. *Revista de Gestão,* 25 (1), 84-101, DOI: 10.1108/REGE-12-2017-008

Chan, S. H., Chok, S. Y., Lae, S. Y., Lam, A. C., & Lee, C. Y. (2017). The Impact of Perceived Organizational Support, Job Satisfaction, Leader-Member Exchange

(LMX) and Work-Life Balance On Employee's Turnover Intention in Manufacturing Industry, Malaysia (Doctoral dissertation, UTAR).

Charoensukmongkol, P., Moqbel, M. & Gutierrez-Wirsching, S. (2016). The role of co-worker and supervisor support on job burnout and job satisfaction. *Journal of Advances in Management Research*, 13 (1), 4 – 22.

Chi, W., Hughen, L., Lin, C., & Lisic, L. L. (2013). Determinants of audit staff turnover: Evidence from Taiwan. *International Journal of Auditing,* 17, 100-112. doi:10.1111/j.1099-1123.2012.00459.x

Ching-Fu, C. & Ting, Y. (2014). Effects of positive vs negative forces on the burnout-commitment-turnover relationship. *Journal of Service Management*, 25 (3), 388 – 410.

Chiu, R. K. & Francesco, A. M. (2003). Dispositional traits and turnover intention: Examining the mediating role of job satisfaction and affective commitment. *International Journal of Manpower,* 24(3), 284-298.

Choi, S., Jang, I., Park, S., & Lee, H. (2014). Effects of organizational culture, self-leadership and empowerment on job satisfaction and turnover intention in general hospital nurses. *Journal of Korean Academy of Nursing Administration*, *20*(2), 206-214.

Cronley, C. & Kim, Y. K. (2017). Intentions to turnover: Testing the moderated effects of organizational culture, as mediated by job satisfaction, within the Salvation Army. *Leadership & Organization Development Journal,* 38(2), 194-209, https://doi.org/10.1108/LODJ-10-2015-0227.

Droussiotis, A. & Austin, J. (2007). Job satisfaction of managers in Cyprus. *EuroMed Journal of Business*, 2 (2), 208 – 222.

Faizan, R., & Haque, A. U. (2016). The Relationship between Societal attributes, Feminine Leadership & Management Style: Responses from Pakistan's Urban Region Female-Owned Businesses. *European Journal of Business and Management.* Vol. 8 (23). 171-191

Field, A. (2009). *Discovering Statistics Using SPSS* (3rd Ed.). SAGE Publications Ltd, India.

Freudenberger, H. (1980). Burnout. Doubleday, New York, NY.

Griffeth, R.W., Hom, P.W. and Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: update, moderator tests, and research implications for the next millennium. *Journal of Management,* 26(3), 463-488.

Habib, S., Aslam, S., Hussain, A., Yasmeen, S. & Ibrahim, M. (2014). The Impact of Organizational Culture on Job Satisfaction, Employees Commitment and Turnover Intention. *Advances in Economics and Business*, 2(6): 215-222, http://www.hrpub.org DOI: 10.13189/aeb.2014.020601

Hair, J.F., Money, A., Page, M. and Samouel, P. (2007). *Research Methods for Business*. John Wiley and Sons, Ltd, Chichester, England.

Heinemann, L. V., & Heinemann, T. (2017). Burnout Research: Emergence and Scientific Investigation of a Contested Diagnosis. SAGE Open January-March 2017, 1-12. DOI: 10.1177/2158244017697154

Hiltebeitel, K. M., & Leauby, B. A. (2001). Migratory patterns of entry-level accountants. *The CPA journal*, *71*(4), 54.

Hsu, H. (2009). Organizational Learning Culture's Influence Job Satisfaction, Organizational Commitment and Turnover Intention among R&D Professionals in Taiwan during an Economic Downturn. (Doctoral dissertation, Faculty of the Graduate School of the University of Minnesota, 2009).

Ingersoll & Smith (2003). The Wrong Solution to the Teacher Shortage. *Keeping Good Teachers.* Vol. 60, 8, 30-33.

Jacob J. L.,John D. R., John W. L., Destin S., Lucy W. G., & Adam W. D., (2011).Personality Traits and Career Satisfaction of Accounting Professionals. *Individual Differences Research*, 9(4), 238-249.

Jenkins, J.M. (1993). Self-monitoring and turnover: the impact of personality on intent to leave. *Journal of Organizational Behavior,* 14, 83-91.

Kalamawei, I. Abeki, S. & Dienye, P. O (2016). Determination of Factors That Influence Job Satisfaction among Health Workers in Southern Nigeria. *Journal of Hospital Administration,* 5(2), 6-14.

Kim, S., Kim, J.N. & Rhee, Y. (2017), Determinants of employee turnover intention: Understanding the roles of organizational justice, supervisory justice, authoritarian organizational culture and organization-employee relationship quality. Corporate Communications: *An International Journal.* 22, (3), 308-328. Research Collection Lee Kong Chian School of Business. Available at:http://ink.library.smu.edu.sg/lkcsb_research/5299

Kong, T. H., Lai, X. J., Lee, Y. E., Ling, H. C., & Loh, L. H. (2017). Factors That Affect Lecturers' Turnover Intention in Private Universities Malaysia (Doctoral dissertation, UTAR).

Koustelios, A. D. & Bagiatis, K. (1997). The Employee Satisfaction (ESI): Development of a scale to measure satisfaction of Greek Employee. *Educational and Psychological Measurement,* 57, 469-476.

Kransz, M., Koslowsky, M., Shalom, N. & Elyakim, N. (1995). Predictors of intentions to leave the ward, the hospital and the nursing profession: a longitudinal study. *Journal of Organizational Behavior,* 16(3), 277-288.

Krejcie, R and Morgan, D (1970). Determining the sample size for research activities. *Educational and Pschological Measurement*, 30, 607-610.

Kuzey, C., (2018). Impact of Health Care Employees' Job Satisfaction on Organizational Performance Support Vector Machine Approach. *Journal of Economics and Financial Analysis,* 2(1), 45-68. DOI:10.1991/jefa.v2i1.a12

Lee, T. H., Lim, Y.M., Yap, C. S. & Tam, C. L. (2010). Stress at work amongst auditors: Is there a light at the end of the tunnel? *MAREF Review,* 1(2), 1-3.

Lee, T. W., Burch, T.C., & Mitchell, T. R. (2014). The story of why we stay: A review of job embeddedness. *Annual Review of Organizational Psychology and Organizational Behavior,* 1(0), 199-216. doi:10.1146/annurev-orgpsych-031413-091244

Lightfoot, G. E. (2014). Talent retention in organizations facing staff reductions via layoffs (Doctoral dissertation, Walden University). Retrieved from http://search.proquest.com/

Lu Y, Hu X-M, Huang X-L, et al. (2017). The relationship between job satisfaction, work stress, work– family conflict, and turnover intention among physicians in Guangdong, China: a cross-sectional study. BMJ Open 2017;7:e014894. doi:10.1136/ bmjopen-2016-014894

Madden, T.J., Ellen, P.S. and Ajzen, I. (1992). A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action. *Personality and Social Psychology Bulletin,* 18, 3-9

Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). MBI: The Maslach Burnout Inventory: Manual. Palo Alto, CA: Consulting Psychologists Press.

Masri, M. (2009). Job satisfaction and turnover intention among the skilled personnel in Triplc Berhad (Master dissertation, Universiti Utara Malaysia, 2009).

MIA Annual Report (2017); Retrieved from http://www.mia.org.my

Mohammad Alzayed & Mohsen Ali Murshid, (2017). Factors Influencing Employees' Intention to Leave Current Employment in the Ministry of Information in Kuwait. *Australian Journal of Business Science Design & Literature.* www.raoaustralia.org ISSN: 2414-3284 (Paper) ISSN: 2414-2962 (Online), Volume: 10, No: 01.

Nouri, H., & Parker, R. J. (2013). Career growth opportunities and employee turnover intentions in public accounting firms. *The British Accounting Review,* 45(2), 138-148. doi:10.1016/j.bar.2013.03.002

Omar, N., & Ahmad, Z. (2014). The relationship among ethical climate, job satisfaction, organizational commitment, and external auditors turnover intention. *Journal of Modern Accounting and Auditing,* 10(2), 164–181. Retrieved from www.davidpublishing.com

Papathanasiou, I. V. (2015). Work-related Mental Consequences: Implications of Burnout on Mental Health Status Among Health Care Providers. *Acta Inform Med.,* 23(1), 22-28. DOI: 10.5455/aim.2015.23.22-28

Park & Kim (2009) Park, J. S. and Kim, T. H. (2009). Do types of organizational culture matter in nurse job satisfaction and turnover intention? *Leadership in Health Services,* 22(1), 20-38

Park, T.Y & Shaw, J.D (2013), Turnover rates and organizational performance: A meta-analysis. *Journal of Applied Psychology,* Vol. 98, No. 2, 268–309.

Pierce, J.L. and Rodgers, L. (2004). The psychology of ownership and worker-owner productivity. *Group and Organization Management,* 29(5), 588-613.

Roche, M., & Haar, J. M. (2013). A metamodel approach towards self-determination theory: A study of New Zealand managers' organizational citizenship behaviors. *The International Journal of Human Resource Management*, 24, 3397-3417. doi:10.1080/09585192.2013.770779

Saeed, R., Mussawar, S., Lodhi, R., Iqbal, A. & Nayab, Ha. (2013). Factors affecting the performance of employees at work place in the banking sector of Pakistan. *Middle-East Journal of Scientific Research,* 17(9), 1200-1208. doi: 10.5829/idosi.mejsr.2013.17.09.12256

Salvagioni, D. A. J., Melanda, F. N. , Mesas, A. E., Gonza´lez, A. D., Gabani, F. L., Andrade, S. M. d. (2017). Physical, Psychological and Occupational Consequences of Job Burnout: A systematic Review of Prospective Studies. *PLoS ONE,* 12(10). DOI: 10.1371/journal.pone.0185781

Scanlan, J. N. & Still, M. (2013). Job satisfaction, burnout and turnover intention in occupational therapists working in mental health. *Australian Occupational Therapy Journal*, 60, 310–318.

Schein, E. H. (1983). *Organizational Psychology (3rd Edition).* New Delhi, India, Prentice Hall of India Private Limited.

Seyrek, I. H., & Turan, A. (2017). Effects of Individual Characteristics and Work Related Factors on the Turnover Intention of Accounting Professionals. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, *7*(1), 236-244.

Shim, M. (2010). Factors influencing child welfare employee's turnover: Focusing on organizational culture and climate. *Children and Youth Services Review,* 32, 847-856.

Sukriket, P. (2015). The relationship between job satisfaction and turnover intention of Thai software programmers in Bangkok, Thailand. *AU Journal of Management,* 12(2). Retrieved from http://www.aujm.au.edu

Tian-Foreman,W. (2009). Job satisfaction and turnover in the Chinese retail industry. *Chinese Management Studies,* 3(4), 356-378.

Utami, I. & Nahartyo, E. (2013). The Effect of Type A Personality On Auditor Burnout: Evidence From Indonesia. *Global Journal of Business Research,* 5 (2), 89-102.

Warren, D. E., Gaspar, J. P., & Laufer, W. S. (2014). Is formal ethics training merely cosmetic? A study of ethics training and ethical organizational culture. *Business Ethics Quarterly,* 24, 85-117. doi:10.5840/beq2014233

Weiss, H. M. (2002). Deconstructing job satisfaction - Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, 12, 173–194.

Yee, R. W., Lee, P. K., Yeung, A. C., & Cheng, T. C. E. (2013). The relationships among leadership, goal orientation, and service quality in high-contact service industries: An empirical study. *International Journal of Production Economics*, 141(2), 452-464. doi:10.1016/j.ijpe.2011.12.012

Yorulmaz, Y. İ., & Altınkurt, Y. (2018). The examination of teacher burnout in Turkey: A meta-analysis. *Turkish Journal of Education,* 7(1), 34-54. DOI: 10.19128/turje.348273

Yung-Tai, T. & Chen-Hua, C. (2010). Impact of role ambiguity and role conflict on employee creativity. *African Journal of Business Management*, 4(6), 869-881.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Oracy Skills Evaluation of Students' RP Performance through Lecturer's, Self and Peer Assessment

Shun Chone Liaw[1], Rasaya A/L Marimuthu [2], Teck Heng Lim[3], Boon Yih Mah[4] and Foo Terng Hoe[5]

[1]Senior Lecturer, Akademi Pengajian Bahasa, UiTM Cawangan Pulau Pinang, Pulau Pinang, Malaysia
lilich8@gmail.com

[2]Senior Lecturer, Akademi Pengajian Bahasa, UiTM Cawangan Pulau Pinang, Pulau Pinang, Malaysia
rasay386@ppinang.uitm.edu.my mail address

[3]Senior Lecturer, Akademi Pengajian Bahasa, UiTM Cawangan Pulau Pinang, Pulau Pinang, Malaysia
limth309@ppinang.uitm.edu.mymail address

[4]Senior Lecturer, Akademi Pengajian Bahasa, UiTM Cawangan Pulau Pinang, Pulau Pinang, Malaysia
mahboonyih166@ppinang.uitm.edu.my

[5]Associate Prof, Akademi Pengajian Bahasa, UiTM Cawangan Pulau Pinang, Pulau Pinang, Malaysia
hoefo964@ppinang.uitm.edu.my

Abstract

Role-play (RP) is an educational method mainly utilized to develop team presentational skills, interdependence and peer feedback. In addition, RP provides great opportunities to train and demonstrate oracy skills among group members. At universities, students passively rely on lecturers to assess their oracy skills in RP activities. In this study, students' RP performance were evaluated by the lecturer, self and peers. The objectives of this research are: firstly, to determine the levels of agreement of assessing students' RP performance among lecturer, self and peers. 104 diploma hotel students were divided into small groups and needed to RP and their performance recorded in video clips. Findings showed there were almost similar significant differences in oracy skills evaluation scores between lecturers and self as well as between lecturer and peer while there was no significant difference in evaluation scores between self and peer evaluation in four dimensions of oracy skills such as physical, linguistics, cognitive and social and emotional domains. However, oracy skills were perceived by the students to have improved slightly in confidence level and teamwork. In conclusion, there were significant differences between oracy skills evaluation scores between lecturers and students (be it self or peer assessed) but students perceived a heightened level of their performance in oracy skills due to constructive feedbacks during their RP video- taped activity.

Keywords: Oracy skills, role-play, self-assessment, peer assessment, lecturer assessment

1. Introduction

When students graduate from higher institutions, they find that language proficiency is important for them to secure a job. Sometimes, fresh graduates with better grades may lose out to other job applicants with lower grades due to poor language skills during the work interview. RP is widely used as an educational method for learning about communication (Krebt, 2017). For undergraduates, fluency in oracy skills is an asset for them to gain graduate employability (Ting et.al, 2017) and it should be given more emphasis than mathematical or drawing skills. RP is usually carried out in the classroom as an educational method to develop team presentational skills, interdependence and constructive feedback. In addition, RP activities enable group members in the team to train and demonstrate their oracy skills in English among themselves.

According to Thomas, Martin and Pleasants (2011), students are usually involved in their assignments and it is the usual practice for students to submit their assignments to their lecturers and then rely on their lecturers to grade their work. Lecturers then provide feedback to justify the marks given. In many cases, more often than not, students do not have any inkling of how they are assessed as specified according to the rubrics as they are not privy to the marking scheme. They rarely become involved in how marks are given and depended on the lecturer's discretion and have unremitted trust in the lecturer's fair judgement in his assessment. Input from students is rarely taken into account and they accept the marks without much disagreement. The traditional way of assessments has placed the sole responsibility and excessive power on the teachers to assess the students' performance. As a result, students are just passive recipients of the final marks provided to them. Lately, there is a growing tendency among educators to engage students as assessors to grade themselves and their peers. Of course, this undertaking brings about a deeper sense of direct involvement among the students in their own assessment as the onus is also on the students themselves to make fair judgement in their own grading and that of their peers. Students have to be trained to assess their own ability and those of their peers in oracy skills. Once briefed and trained, they are able to engage themselves directly in the assessment process. Through direct involvement as assessors, they become critical of their friends' and own performances (Nyode, 2017). Whether this leads to a greater awareness and ultimately better understanding in their learning have been greatly debated and analysed in short and long term studies.

1.1 Problem Statement

In the Malaysian context, students are usually not given the opportunities to assess themselves or by their peers. Usually, they are given a grade by their lecturer and they just accept it. Usually, no feedback is provided on how to improve their weaknesses and even if the feedback is given, the comments are entirely from the lecturer. According to Leathwood (2005), students need to be partakers in the assessment process. Their role is significant but often sidelined by lecturers during grading of assessed class projects, oral presentations and assignments. Rightly they should not be treated this way. After all, they are university students who are mature enough to think critically and contribute their input in their own given task. As one of the stakeholders, they share the task in determining how marks should be dispensed in assessing their own oracy and peers' oracy skills. More importantly, they are able to provide concrete reasons on how to support the assessed marks given by them. When they partake in the assessment process, they also become active participants in the learning process. As such, the quality of learning can be greatly enhanced.

To make the students engaged themselves more actively in oracy skills assessment, Meyer and Niven (2007) contend that a clear cut set of guidelines need to be drawn up and shown to all the students before any assessment is carried out. In fact, students' views and feedback should also be gathered during the pre-planning stage. This would allow them to be drawn in the decision making of the marking scheme and definitely would provide them with a sense of relevancy and ownership in such assessment process.

The inclusion of self and peer assessments in English related courses is not a recent development. However, not many studies have been carried out specifically on oral presentation skills. As pointed out by De Grez, Valcke and Roozen (2012), related studies carried out employ different samples and diverse instruments. This in turn makes it very difficult and complicated to make a clear-cut comparison between such diversely connected studies. For instance, AlFallay (2004) conducted his study on applied sciences students studying in an English programme while Patri (2002) involved Chinese students.

2. Significance of the study

In recent times, universities have encouraged students to judge their own class presentations and activities through self- and peer assessments. However, when it comes to involvement of oracy skills in RP at universities, lecturers remain as students' sole assessors. Thus, this study strives to determine the effectiveness of self- and peer assessment of RP compared to lecturer's assessment.

2.1 Objectives

1. To determine the level of agreement for assessing students' RP performance between lecturer and self.
2. To determine the level of agreement for assessing students' RP performance between lecturer and peers.
3. To determine the level of agreement for assessing students' RP performance between self and peers.

3.0 Literature Review

Lecturers have been getting their students to participate and evaluate on their own as well as their peers' oral presentations. There are many reasons for making them involved in the assessment process. During the assessment process, students are able to observe others and then reason on their own. The students will be able to compare their oracy skills competency with that of their peers. As the process develops, the students will assess their own strengths as against their weaknesses and in the process enhance on their own talk skills through RP. On the other hand, if assessment is carried out without students' involvement in assessment of oracy skills, students' awareness and monitoring may not be heightened. They may not be conscious of their own development and that of their peers as they just accept blindly the assessment graded by their lecturer.

Mercer (2000) in a research study found that students were able to progress in their thinking. He notes that such inter-thinking comes about when they think collectively as a group. These group social interactions have been able to cater for tightknit intellectual discourse, pragmatic and socio-cultural functions of the language in their feedback.

3.1 On the evaluation of students' RP performance through self- assessment

Henner -Stanchina, & Holec (1985) defines self-assessment as an assessment technique that students based according to their own set of rules and learning expectations. For instance, in their own oracy skills performance, the students examine the evaluation process and determine whether they have achieved their objectives against their own guidelines provided. In other words, this study on self-assessment considers students' mastery of speaking skills based on their own expectations in a more conscious and meaningful context.

3.2 On the evaluation of students' RP performance through peer assessment

Topping (1998), on the other hand, views peer-assessment as assessment of individuals who are of the same learning status and decide on the success of the quality or outcomes of learning by their peers. They usually give and receive feedback (O'Farrell, 2009).

Peer assessment is considered more influential than self-assessment in terms of their effects on students' course achievement results (Abolfazli and Sadeghi, ,2013). In fact, Chang et al (2012) found that in a study on portfolio assessment, peer assessment group had the highest mean scores followed by self-assessment while teacher assessment had the lowest scores. Likewise, in studies carried out by Chang et al. (2012) and Saddler and Good (2006), peer-raters are found to be stricter than self-raters. Findings by Brown (2001) and Patri (2002) showed that feedback by peers on writing activities have made substantial impact on students' writing improvement.

In Ching's study (2014), 60% of learners viewed RP as beneficial in providing meaningful feedback. In fact, substantial peers' encouragement motivated them greatly to make decisions in their RPs. Likewise, this study investigates whether peer assessment in RP will lead to peer rating which are consistent, impartial and valid. More importantly, it seeks to find out whether peer raters differ from test scores given by self- and lecturer assessors.

3.3 On the evaluation of students' RP performance through lecturer assessment

Lin et al. (2001) reported that teacher-scoring was the strictest while peer-scoring was the most lenient with self-scoring comparatively placed in between. It contradicted with the Chang et al's (2012) findings in that peer-raters tended to be more lenient than self-raters. Teachers were the strictest as they were following closely with the scoring standard. RP has been employed by lecturers when they assess students in more recent education approaches. In Vizeshfar et al's study (2016), they have used the effects of RP in enhancing students' skills. They found that the average female's scores in RP method had a more significant increase over traditional methods on 228 nursing students' education at Shiraz university.

3.4 Further comparative studies of assessments among self, peer and lecturer assessments

De Grez, Valcke and Roozen (2012) compared both the teacher-peer assessment and teacher-self assessment scores. The correlation of intra-class relationship indicated that teachers and peers still interpret the criteria for scoring assessment in different ways. In the teacher-self- assessment scores, the gap was even more telling where self-assessment scores were higher than the marks given by the teachers. Generally, peer assessment can still be considered as a favourable source of reference for external feedback.

In summary, this compatibility comparison studies into the oracy skills evaluation of students' RP performances and analysis was carried out to determine the proximity between self, peer and lecturer assessment. Moreover, this study is keen to establish whether results show any statistically significant difference in the assessment of self, peers and lecturers on six evaluation items of oracy skills.

4.0 Methodology

4.1 Participants

104 hotel students from three diploma programme codes took part in the research study. Convenience sampling was used when all the students in the respective classes were taken as cohorts. It was easier to carry out as compared to the other research methods.

4.2 Procedure

For the first two weeks, the group members were chosen and briefed on what to do. Before embarking on their own presentation, they would gather in week 3 to watch two sample RP video presentations. They would watch the first video and indicate mark scores on their own. The lecturer would discuss with them and asked them their reasons for the marks given. After they had collectively agreed, they would then proceed to the second sample RP video presentation. They would again be instructed to indicate the marks for the subsequent RP video presentation. The lecturer and class members in the respective groups would once again fall back on their assessment rubrics for score references. This inter-rater observation analysis during the two sample RP oral video presentations were to establish reliability in the mark scores in the study. The reliability was found to be .87 for the categories among raters who were similarly checked and in agreement with each other. Two practices on the evaluation would lessen the subjectivity of determining scores in the respective categories found in the rubrics.

Subsequently, from week 4 to week 10, group members would continue to work on their weekly activities and projected tasks as outlined in the table below. During the course of preparations, students were free to seek assistance from their group members as well as feedback from other group members or lecturer. They need to submit their RP video clips in week 11. During week 12 onwards, the video presentations from each group would be shown to the class and after each viewing the lecturer as well as the students would have to either evaluate according to own self, peer or lecturer assessed the video clips shown. The assessment rubrics were similar to the ones shown earlier during the two sample assessment video presentations in week 3. Time and again the students would be reminded to refer to the oracy assessment rubrics so as to determine the scores and they should not to be influenced by extraneous factors such as their close friendship with their classmates when recording their scores during actual own group RP presentations.

Table 1 Step by step task to achieve each week

Week	Activity
Week 1	Class decided on group members
Week 2	Briefing on the task and given a situation to work on
Week 3	Video samples shown to class and ‘calibrating’ scores based on oat evaluation form Decided on venue to carry out the assigned situation
Week 4	Script writing – check for errors
Week 5	Practices / rehearsals among group members
Week 6	Short rehearsals & feedback from other group members
Week 7-8	Shooting – act out / review
Week 9-10	Edit/refine/audio/sound effects
Week 11	Submission of video clip
Week 12	Evaluation – lecturer’s, peer and self-assessment

5.0 Findings/ Discussions

5.1 Questionnaires / Interviews

Table 2 Assessment items employed for self, peer and lecturer for evaluating RP performance.

	Evaluation/ Oracy skills	Lecturer Mean (SD)	Self Mean (SD)	Peer Mean (SD)
1	Able to use voice skills with appropriate tone and projection for the role	2.58 (.82)	3.1 (.54)	3.24 (.73)
2	Able to use gestures/posture/facial/ expression and eye contact	2.9 (.69)	3.1 (.81)	3.28 (.79)
3	Able to use language and speech suited to role playing	2.62 (.69)	3.1 (.66)	3.3 (.68)
4	Able to consider the venue, situation and people around	2.84	3.64	3.63

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

	you and your partner/s	(1.07)	(.77)	(.72)
5	Able to listen to my partner/s playing roles and responded appropriately	2.73 (.86)	3.53 (.81)	3.63 (.74)
6	Able to be confident and lively when commented by others	2.58 (.87)	3.69 (.71)	3.72 (.82)
	TOTAL	2.7	3.36	3.47

Table 3 Level of agreement self-peer-lecturer assessment

Test Statistics[a,b]

	Evaluation 1	Evaluation 2	Evaluation 3	Evaluation 4	Evaluation 5	Evaluation 6
Chi-Square	45.266	12.124	47.193	37.946	61.289	94.986
df	2	2	2	2	2	2
Asymp. Sig.	.000	.002	.000	.000	.000	.000

a. Kruskal Wallis Test

b. Grouping Variable: Group

Table 4 Post –Hoc comparison tests
Multiple Comparisons

Dependent Variable: Evaluation5
Tukey HSD

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Lecturer	Self	-.798*	.112	.000	-1.06	-.54
	Peer	-.904*	.112	.000	-1.17	-.64
Self	Lecturer	.798*	.112	.000	.54	1.06
	Peer	-.106	.112	.611	-.37	.16
Peer	Lecturer	.904*	.112	.000	.64	1.17
	Self	.106	.112	.611	-.16	.37

*. The mean difference is significant at the 0.05 level.

The results from table 3 showed that there were almost similar significant differences in oracy skills evaluation scores between lecturers and self as well as between lecturer and peer while there was no significant difference in evaluation scores between self and peer evaluation in four dimensions of oracy skills such as physical, linguistics, cognitive and social & emotional domains.

5.2 Level of agreement between lecturer and self-assessment

For evaluation no. 1-6 (except no.2) in table 3 of oracy skills, both these groups showed statistically significant differences. In table 4, post -hoc comparison tests with HSD (Honestly Significant Difference) showed significant difference in the mean scores. Turkey HSD tests were higher than that of the lecturer's. However, only for evaluation no. 2 was there no significant difference. Incidentally, this is the item that the lecturer had awarded the highest score among the six evaluated items. For the students, the mean score of an average 3.1 was one of their lowest average in self – assessment. However, there was also a wide difference (sd 0.81) among students in awarding marks. As stated earlier by De Grez et al. (2012), there were different perceptions of assessment resulting in such wide mean scores. However, unlike their study, self-assessment scores were not higher than that given by their peers.

5.3 Level of agreement between lecturer and peer assessment

As mentioned earlier, when these two groups were compared, there were significant differences in oracy skills for all six evaluated items. Peer assessment group results, as posited by Chang et al. (2012), provided the highest mean scores. In this study, peers keyed in the highest marks in all the four domains in the six oracy skills evaluations.

5.4 Level of agreement between self and peer assessment

Except for evaluated item no. 2 which is categorized in the physical domain, both these groups (self and peers) converged in their assessments and that there were almost no significant differences in their mean scores after Post Hoc comparison tests were carried out. Grez et. al (2012) pointed out that attitude, experience and assessment criteria variants might have contributed to their higher assessment scores than lecturer's scores.

The gap in assessment ratings was significant among the three assessors. Three approaches could be taken -

1. As mentioned by Lin (2001), the shallowness of ideas by students in giving higher mean scores. Lecturer should go through with them the scoring system during week 5/6. The lecturer shows video clip of previous taped recording and together individually assess the oracy skills of performers in the clip. Lecturer discusses with students his assessment ratings with students. Lecturer should make students aware of the mark scores system.
2. Peer assessment shows highest mark scores (Chang et al2012) among the three types of raters. Though they have significant impact on group members (Brown, 2001;Patri, 2002), lecturers need to guide them to be more objective. The assessors need to detach themselves from being influenced by their close relationship and concentrate on the guidelines given in the evaluation form.

3. Assessors from the other groups can also watch the video clips. Such actions taken would yield a more detached, unbiased assessment.

6.0 CONCLUSION

In summary, there were significant differences between oracy skills evaluation scores between lecturers and students (be it self or peer assessed) but students perceived a heightened level of their performance in oracy skills due to constructive feedback during their role play video- taped activity.

The finding which shows peers reporting higher marks as compared to teachers is in agreement with the results of other studies (Langan et al.,2008).Formative assessments can still be carried out involving student and peer assessments as students perceive a higher confidence level of their performance in oracy skills (social and emotional domain) due to the constructive feedback during their role play video-taped activity.

References.

Abolfazli, Z., & Sadeghi, K. (2013). The effect of assessment type (self vs. peer) on Iranian university EFL students' course achievement. *Procedia Social and Behavioural Sciences, 70,* 1552-1564.

AlFallay, I. (2004) 'The role of some selected psychological and personality traits of the rater in theaccuracy of self- and peer – assessment', *System 32*, 407-425.

Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy* (2nd ed.). San Francisco State University: Longman.

Chang, C. C., Tseng, K. H., & Lou, S. J. (2012). A comparative analysis of the consistency and difference among teacher-assessment, student self assessment and peer-assessment in a web-based portfolio assessment environment for high school students. *Computers & Education, 58*, 303–320.

Ching, Y-H. (2014). Exploring the impact of role- playing on peer feedback in an online case-based learning activity. *The International Review of Research in Open and Distance Learning, 15* (3), 293-311.

De Grez, L., Valcke, M. & Roozen, I. (2012). How effective are self- and peer assessment of oral presentation skills compared to teachers' assessments? *Active Learning in Higher Education, 13*(2), 129-142.

Henner-Stanchina, C., & Holec, H. (1985). Evaluation in an autonomous learning scheme. In P. Riley (Ed.), *Discourse and learning.* London: Longman.

Krebt, D.M. (2017). The effectiveness of RP techniques in teaching speaking for EFL college students. *Journal of Language Teaching and Research, 8* (5), 863-870.

Langan, M., Shuker, D.M, Cullen, W.C., Penney, D., Preziosi, R.F., & Wheater, C.P. (2008). Relationship between student characteristics and self-, peer and tutor evaluations of oral presentations. *Assessment & Evaluation in Higher Education, 33* (2), 179-190.

Leathwood, C. (2005). Assessment policy and practice in higher education: Purpose, standards and equity. *Assessment and Evaluation in Higher Education*, *30* (3), 307-324.

Lin, S.-J., Liu, Z.-F., & Yuan, S.-M. (2001). Web-based peer assessment: Attitude and achievement. *IEEE Transactions on Education*, *44*(2), 13.

Mercer, N. (2000). *Words and Minds: how we use language to think together*. London: Routledge.

Meyer, W., & Niven, P. (2007). Critical reflections on the role of identity in two respondents' formative assessment practices. *English Academy Review, 24*(2), 121-133.

Nyode, A. (2017). Peer/ Self assessment and student learning. *International Journal of Teaching and Learning in Higher Education, 29* (2), 255-269.

O'Farrell, C. (2009). *Enhancing Student Learning through Assessment A Toolkit Approach*, from http://www.tcd.ie/teaching-learning/academic-evelopment/assets/pdf/250309_assessment_toolkit.pdf

Patri, M. (2002). 'The influence of peer feedback on self- and peer assessment of oral skills'. *Language Testing 19(2),* 109-131.

Sadler, P., & Good, E. (2006). The impact of self- and peer-grading on student learning. *Educational Assessment*, *11*(1), 1–31.

Thomas, G., Martin, D. & Pleasants, K. (2011). Using self- and peer-assessment to enhance students' future learning in higher education. *Journal of University Teaching & Learning Practice*, *8*(1), 1-17 from http://ro.uow.edu.au/jutlp/vol8/iss1/5

Ting, S-H., Erniza, M., Chuah K-M., Misieng, J. & Jerome,C. (2017). *Indonesian Journal of Applied Linguistics, 7* (2), 315 – 327.

Topping, K. (1998). Peer assessment between students in colleges and universities. *Review of Educational Research, 68*, 249-276.

Vizeshfar, F., Dehghanrad, F., Magharei, M., Mohammad, S. & Sobhani, J. (2016). Effects of Applying Role Playing Approach on Nursing Students' Education. *International Journal of Humanities and Cultural Studies*, 1772-1781

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

The Needs of Special Prison for *Syariah* Offenders in Malaysia

Alizah Ali [1*], Nurulhasni Shaari [2], Noraini Ismail [3] Siti Zarikh Sofiah Abu Bakar [4]

[1]Jabatan Undang-undang, UiTM Cawangan Johor, KM 12, Jln Muar, 85009 Segamat, Johor, Malaysia.
aliza941@johor.uitm.edu.my

[2] Jabatan Undang-undang, UiTM Cawangan Johor, KM 12, Jln Muar, 85009 Segamat, Johor, Malaysia.
nurul015@johor.uitm.edu.my

[3] Jabatan Undang-undang, UiTM Cawangan Johor, KM 12, Jln Muar, 85009 Segamat, Johor, Malaysia.
norai257@johor.uitm.edu.my

[4] Akademi Pengajian Bahasa, UiTM Cawangan Johor, KM 12, Jln Muar, 85009 Segamat, Johor, Malaysia
sitiz148@johor.uitm.edu.my

Abstract

Population density among the prison community has been a debating issue in Malaysia. This is might due to the placement of both civil and *syariah* offenders in one place. It should be highlighted that, the placement of *syariah* and civil offenders in the same cell could be the root of many problems. Therefore, this study is directed to discuss the needs of separating the placement of the civil and *syariah* offenders. In the effort of separating these two types of offenders, several aspects need to be pondered upon, which are the policies, objectives, implementations, modules and training faced by them. Other than that, the separation is important in upholding justice, as well as achieving the punishment objectives. This conceptual study involves books, articles, journals and previous literature. Based on the findings, there are a lot of differences between the punishments for civil and *syariah* offenders, even though they share the same punishment objectives, which are to give them lesson. By referring to differences established, this study strongly agreed on promoting the needs of special prison for *syariah* offenders.

Keywords: prison, *syariah* offenders, civil offenders, Islamic Law, Civil Law

1. Introduction

The sentence of imprisonment is not merely a civil court matters in Malaysia. *Syariah* courts in every state in Malaysia also has jurisdiction to punish *syariah* offenders with imprisonment. There are almost 60 *syariah* criminal offences provided for imprisonment as found in the *Syariah* Criminal Enactment, the Islamic Family Law Enactment and other laws. Among the offences are consuming

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

alcoholic drink, not fasting during the month of *Ramadhan*, contempt of court and others. For example, Section 3 of the Syariah Criminal Offenses Enactment of 1997 states that:

> (1) Any person who worships nature or commits any act of worship or respect to any person, beast, place or thing in any manner that violates *Hukum Syarak* shall be guilty of an offense and when be liable to a fine not exceeding three thousand ringgit or to imprisonment for a term not exceeding two years or to both.

Such a provision does not require the judge to impose a fine as a priority. Instead, a judge has a prerogative power in setting appropriate penalties for offenders based on the background of the offender and the nature of the offence committed. In reality, almost all judges are more likely to impose penalties than jails, bribes, community services and other types of penalties. The prison sentence, if any, is often appealed to the extent that the prison sentence will be dropped and replaced with the amount of the fine added (Siti Zubaidah Ismail, 2013)

In comparison to the civil court which can granted order to life imprisonment, *syariah* court is limited to a maximum period of three years only. The imprisonment in Islam seeks to provide the opportunity for the offenders to undergo rehabilitation and repentance sessions. It is not intended to punish the offenders by withdrawing their right of freedom. Therefore, it is very important for the government to set on the appropriate module.

At the moment, all offenders either *syariah* or civil offenders are placed in the same prison. It is a concern that the *syariah* offenders might be affected by civil offenders such as they may be influenced to commit other crimes. The population density in the prison also affects the *syariah* offenders. This is because, overcrowded cell may cause outbreak of fights, which could also lead to deceased.

Due to this problem, it is the time to determine, whether Malaysia needs a special prison for *syariah* criminal offenders.

2. Definition of Prison

Section 2 of the Prisons Act 1995 (Act 537) defines "prison" as;

> *"Any house, building, enclosure or place, or any part thereof, which is declared to be a prison under Section 3 and shall include the grounds and buildings within the prison enclosure and also the airing grounds or other grounds or buildings belonging or attached thereto and used by prisoners. It can be understood as a building in which people are legally held as a punishment for a crime they have committed or while awaiting trial."*

However, the word prison is not directly translated in the Holy *Qur'an* or *Sunnah* of the

Prophet Muhammad (P.B.U.H). The concept of prison has been continuously debated among Islamic scholars as a punishment under the category of *ta'zir* or chastisement. It literally means prohibition. This form of punishment is generally under the power of a state to imprison a person who is found guilty of committing an offence other than *hadd* and*qisas*. In Islamic Criminal Law, the sentence of imprisonment is interpreted from the *Quranic*'s order for the punishment of adultery and robbery. (Abd Karim Zaidan, 1997)

In addition, the sentence of imprisonment is taken from the term "*yunfauna fil ard*". This verse is quoted from *Surah Al-Maidah*: 33. The term *"yunfauna fil ard"* means to be exiled from the land. According to Ibn Qudamah Al-Hambali, the term to be exiled from the land means to banish the offenders from their country. In contrast, Imam Malik interpreted the word *"yunfa"* as to shelter or to confine the offender in his own country. This opinion is supported by Imam Abu Hanifah and Syafie and it has been considered as the better opinion by Abu Qudamah that the concept of banishment or proscription of the offender coincides with the concept of imprisonment which is being implemented today.

3. The Differences between *Syariah* and Civil Prisons

In response to the relevance of cell sharing for *syariah* offenders and civil offenders, this study leads us to ponder upon the policies, objectives, implementations, modules and training faced by both types of offenders. If all these factors are similar, then the offenders can be placed in the same cell. If the mentioned factors failed to be fulfilled, they surely need to be segregated. These factors determine the purpose of the imprisonment sentence.

This study will be discussing the differences between the imprisonment of *syariah* and civil offenders. The differences are as follows;

3.1 The Method Used in Educating the Offender

The Civil or *Syariah* Law has the similar aim in sentencing the offenders that is to protect the public interest and to educate them for not repeating the same mistakes in the future. Islamic law is not just punishing the offenders but it also maintains the noble values of society. The concept of justice and crime prevention in society is strongly emphasized as a philosophical punishments in Islamic law. For example, Islam sets the death penalty for apostates, whips and stubs for those who commit adultery and whipping for those who drink alcohol. The severe punishment imposed is not intended to punish the offender solely, but to teach and educate them to repent, to become better people and hence, not to repeat the mistakes. (Husin Ahmad.1988), (Roosfa Hashim, 2009).

In addition, the theory of prevention in Islamic law is seen to be more comprehensive and effective as this punishment is executed in the presence of the public. For example, Saudi Arabia, Acheh and some Islamic countries are implementing *hudud* sentences at the mosque grounds on Friday after dawn prayers. Anyone who witnesses the execution of the sentence will be scared and will prevent his or her family members from committing the same offence. Additionally, the offenders and their family will be humiliated. This situation conforms to the objective of the sentence in the Islamic law which is not merely aiming on the pain, but rather the shame and deterrence of the public from committing the same offence.

This is clearly contradicting to the civil law that executes the sentence privately. The sufferings of being jailed and whipped are borne by only the prisoners, and not shared to the public. Hence, the similar offences will be repeated by the public and the concept of prevention is absolutely pointless.

The next question refers to the method of educating prisoners in prison. Are they having the same module as civil offenders? In general, there is no specific procedure in handling the prisoners of *syariah* offenders. They are categorized based on their imprisonment's period. *Syariah* offenders may be classified as 'short sentence prisoners'; prisoners imprisoned for a period of less than six months. Meanwhile, in terms of recovery program inputs, they will attend a special program called the Human Development Plan which consists of disciplinary, self-reinforcement, skill and community training. There is no specific holistic module to make them repent and live religiously.

Based on observations, the civil and *syariah* offenders are still stationed in the same prison although civil offences are considered to be heavier than *syariah* offences. For example, a *syariah* offender who was jailed for 3 months for not fasting is placed in the same cell with armed robbers and rapists. The 3-month period together, day and night, may negatively affects the *syariah* offender. It is feared that the *syariah* offenders tend to commit other civil offences once they get out of prison. In addition, the shared cell could also lead to other critical issues such as bullying and sodomy.

Apart from that, prison's segregation is seen as a solution to the problem of prison's high density. Through segregation, educating process will also be enhanced with greater focus and integration.

3.2 Types of Civil and *Syariah* Offences

Civil Law in Malaysia mostly rooted from Western countries. For example, the Penal Code (Act 574) which is taken from the Indian Penal Code. This law is adapted from the rules of England Common Law collected and written in the form of an act. In addition to the Penal Code, criminal law is also available in certain Acts such as the Dangerous Drugs Act, the Customs Act 1967, the Anti-Corruption Act 1997, the Internal Security Act 1957, the Official Secrets Act 1983 and others. (Farhah Rusyda, 2002). Conventional criminal offences can be classified into several categories such as (a) offence against the state, (b) offence against individual bodies such as murder, invasion, (c) offence against property such as theft, robbery, (d)) offence relating to government officer, health and public interest and (f) breach of contract.

Syariah or Islamic law in Malaysia is limited to only a few matters, especially family matters, marriage and any matters related to family and marriage. *Syariah* offences are within the exclusive jurisdiction of *Syariah* Courts (Latest information from the Sabah *Syariah* Judiciary Department, Classification of Criminal Cases) which are

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

divided into two main types.

The first type is *Mal* (Civil) matters such as (a) engagement, marriage and divorce or annulment of marriage, (b) Claim on property or property award arising from the above matter, (c) maintenance of wife and children, custody and guardianship (d) gift Inter-vivos, joint property , *waqf* or veto, (e) Other matters authorized by the law to him by any statutory law.

The second type is Syariah Criminal Matters which include (a) Matrimonial offences such as wives abuse, disobedience to husbands, (b) Offences relating to illegitimate relationships such as illegal intercourse, incest, prostitution and *khalwat*, (c)) Offences relating to worship and faith such as not attending Friday prayers, not fasting during *Ramadhan*, non-payment of *zakat* (d) Offences of selling and buying alcoholic beverages, (e) Offences relating to religious conversion for example not reporting, checking of apostasy , offences relating to adoption and (f) Other types of offences which are not specifically mentioned in the above categories.

3.3 Differences in the Objectives of Sentencing / Penalty.

Basically the objective of sentencing in Islamic Law can be divided into two parts, namely general objective and specific objectives. The general objective refers to the purpose or impact of the revelation itself. It is known as the *maqasid syari'e* which is principally guarding the religion (*addeen*), life, intellect, dignity and wealth. These five policies should be prioritized in ensuring that *syariah* law is upheld. (Amir Abd Aziz, 1999).

Specific objectives refer to retaliation, prevention and recovery elements. For example, Islam introduces *Qisas* punishment for criminal offenders. The execution of the offence is also expected to result in fear that the public may not commit the same offence. This highlights the very precise element of prevention. Punishment also serves as an element of recovery. The effects of the regrets and hardships received by the offenders will inspire the future offenders' consideration. In this context, the offenders are obliged to repent with real repentance. This recovery is also regarded as the preparation of the offender to return to society (Paizah Binti Ismail, 2002)

Referring to the case of Reg vs Davis (1978) (K67 CrApp R 207: 2) the judge decided that the objective of the sentence in civil law is to refer to the theory of prevention, recovery, abolition of capacity and retaliation. Dr Mohd Al-Adib, *Syariah* Department Lecturer of Universiti Kebangsaan Malaysia recognizes that the objective of punishment from preventive measures is similar between civil and *syariah* offences. However, the theory of 'capacity-removers' is debated. Dr. Abu Maati Hafiz Abu Al-Fatah states that, in the Islamic Law, the punishment imposed is not the real goal as the ultimate goal is as a reminder from God so that the human being is able to prevent themselves from evil. This objective is seen more holistic in addition to inviting offenders to return to the path of Allah. (Paizah Binti Ismail, 2002)

Since the objective of imprisonment in Islam is to provide opportunity for the offenders to undergo rehabilitation and repentance sessions, aspects of faith, morals and *syariah* will be emphasized throughout the term of imprisonment. Furthermore,

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

this detention is acknowledged as not only intended to torture and restrict the freedom of the offender, thus different requirements and approaches and services for *syariah* offenders are needed, compared to civil offenders.

The goal of sentence for civil offenders is to be general, liberal and neutral. This is evidenced by the Prison Client's Charter specifically specifying that the objective of setting up a prison is to provide a secure detention area and humane service to prisoners based on the provisions of the law. The law regulating prison affairs are the Prisons Act 1995, Prisons Regulations 1953 (amendment 2000) and Prison Directors' General Instructions. This objective does not touch spiritual interests and is secular in nature.

3.4 Distinction of procedure to arrest, remand and trial.

It is undeniable that offenders, either Syariah or Civil have several rights which guaranteed by Federal Constitution. At the same time, Section 28 of Criminal Procedures Code 1935 list down the rights, among others;

a) Right to know the reason of arrest
b) Right to communicate with representative/lawyers appointed by himself within 24 hours of arrest.
c) Right to communicate with relatives or friends and to inform his conditions, within 24 hours of arrest.
d) Right to have a consultation from appointed representative/lawyers. Such representative/lawyers is allowed to meet the suspect in the place where he is confined before the police officers conduct investigation upon him.

Section 117 of Criminal Procedure Codes 1935 states the right of the suspect to be heard before the magistrate within 24 hours of the arrest as to get the order of remand with minimum 3 days and subject to further extension. Within the time of remand, the suspect has to undergo investigation conducted by police officers.

Unfortunately, this remand procedure is not happened to the *Syariah* criminal offenders. Section 22 of *Syariah* Criminal Procedure (State of Selangor) Enactment 2003 states the procedure on how the person arrested should be treated;

a) The suspect shall be brought to the magistrate within 24 hours of arrest to be charged.
b) No detention shall be made after that particular 24 hours.

In other words, there is no investigation procedure practised in *syariah* criminal case.

4. Recommendation and Conclusion

Malaysian Government is yet to separate the prison for *Syariah* and Civil offenders though this issue is quite critical. The offences for *Syariah* and Civil offenders are clearly different. *Syariah* offences mostly are offences between human being and God. For example, if someone commits an offence for not fasting during the month of

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Ramadhan, this offence is only committed between he himself and God. There is nothing to do with the society at large. While Civil offences are offence toward the public. For instance, robbery, rape, murder and other crimes. Since the physical of the crimes are different, the offenders must be punished with different methods of punishment. It is understood that punishments are sentenced as to give lesson to the offenders. Therefore, to achieve the objective of the punishment, the methods of punishment must be parallel to the types of the offences. Thus, the best method should be applied such as by inserting Holistic modules in the punishment module for *Syariah* offences.

It is recommended that *Jabatan Penjara Malaysia* to collaborate with *Jabatan Kehakiman Syariah Malaysia* (JKSM) in setting up the specific module to the *syariah* offenders. The module shall be made by the committee who have the capacity to draft the module. Those committee must have knowledge and academic qualification on *syariah* criminal together with their expertise in prison module maker so that the approaches can be different from Civil prison module. The module should include personal, religious activities and community services activities.

It is understood that to construct a new building for prison with all facilities and officers may be a burdening cost to the government. Thus, it is recommended that the *Syariah* offenders to be confined in the temporary cell in the premise of the court or even in the temporary cell in the police station. This may not cause harm to the court or police officers since the period of confinement is not more than 5 month (maximum). In practical view, the judge only gives four to five days imprisonment.

In the effort of resolving this matter, *Jabatan Penjara Malaysia, Jabatan Kehakiman Syariah Malaysia* (JKSM), police department and law makers should play their roles in the effort of separating the Syariah and Civil prisoners. The affairs of the prisoners should be concerned so that the goal of the punishment can be achieved successfully.

References

Abd Karim Zaidan. (1997). Al-Mufassol Fil Ahkam Al Mar'atu Wal Baitil Muslim Fi Syariah Islamiah: 120 Al-Quran, Surah Al-Maidah: 33

Amir Abd Aziz. (1999). Fiqh Kitab Wa Sunnah,

Farhah Rusyda. (2002). 9 Perbezaan antara Undang-undang Jenayah Islam dan Undang-undang Jenayah Sivil, Lajnah Penerangan dan Dakwah, 13 Julai

Husin Ahmad.(1988). Undang-undang dan Keperluannya Mengikut Islam, Sinaran Islam, tahun 8, bil 2, Jun: 8- 15

Mohd Al-Adib Samuri. (2012). Teori Pencegahan Sebagai Justifikasi Hukuman: Analisis Perbandingan Antara Perundangan Sivil dan Islam, Islamiyyat: 131-143

Paizah Binti Ismail, (2002). Status Wanita Dalam Undang-Undang Jenayah Islam

eISSN 2600-8564

Roosfa Hashim. (2009). Keperluan Undang-undang Jenayah Islam, Utusan Melayu. 2 Mac

Siti Zubaidah Ismail. (2013). Penjara Khas bagi Pesalah Syariah: Suatu Keperluan?*ShLR*, bil 2:1-

Statutes

Prisons Act 1995 (Act 537)
Syariah Criminal Offenses
Enactment of 1997 Penal Code
(Act 574)
Criminal Procedure Codes 1935
Criminal Procedure (State of Selangor) Enactment 2003

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Level Of Awareness On The Legal Implications Of Plagiarism Among Adult Learners: A Case Study Of Public And Private Universities In Johor And Melaka

Alizah Ali[1], Rohani Jangga[2] and Nora Mohd Basir[3]

[1]Senior Lecturer, Department of Law, Universiti Teknologi Mara Kampus Johor Cawangan Segamat, Johor, Malaysia
aliza941@johor.uitm.edu.my

[2]Senior Lecturer, Faculty of Business Management, Universiti Teknologi Mara Kampus Johor Cawangan Segamat, Johor, Malaysia
rohan107@johor.uitm.edu.my

Email address

[3]Senior Lecturer, Faculty of Computer and mathematical Sciences, Universiti Teknologi Mara Kampus Seremban, Negeri Sembilan
noram661@ns.uitm.edu.my

Abstract

Academic dishonesty has been proven to be found at all levels of schooling from grade school to graduate school due to the convenient accessibility of electronic resources on the Internet. It is a growing problem at postsecondary institutions. Academic dishonesty can be defined as dishonest behavior related to academic achievement including cheating, plagiarism, lying, deception and any other form of advantage unfairly obtained by one student over the others. Academic dishonesty may be more prevalent in the near future as universities offer more courses through online distance education. In this research we gathered data concerning the level of awareness on plagiarism and level of awareness on the legal implication of plagiarism among 100 respondents who are adult learners at universities which offer distance education in Malaysia. We conclude that raising awareness about plagiarism might be worthwhile it is no substitute for systematic detection and vigilant enforcement among adult learners.

Keywords: *Level of awareness, plagiarism, long distance students, legal implication.*

1. Introduction

For the past fifteen years, many universities have been implementing more and more of continuous assessment coursework rather than examination-based assessment (Overfield & Dawson, 2006). Students face a variety of assessment such as assignments, case reviews, reports, quizzes, projects, problem base learning, dissertation and followed by formal examinations. All these coursework raise the opportunity to plagiaries from books and journals in written coursework. Unfortunately, students do know that they are committing plagiarism but they do not consider this act as a problem thus addressing the problem as a preventative measure in higher education makes it more important. Plagiarism in its many methods and categories has always existed but the extensive development and use of the Internet as a source of learning materials has enabled students to download and plagiarise information much more easily (Dawson & Overfield, 2006; Wideman, 2008; Granitz & Loewy, 2006; Madray, 2007). Eventually, the need to increase the awareness should be enforced to ensure the learners do not easily use Internet as their option to finish up their tasks even though the temptation to plagiarize is high. This is due to the fact that we are living in a world of technological access to almost unlimited informational resources.

Usually students experience difficulty in integrating new information into their own work or writing and this easily lead to plagiarism (Madray, 2007; Granitz & Loewy, 2006). On the other hand, this research prove that, even though there is a rise of plagiarism by using the Internet, somehow learners are still incapable of learning the right method of turning in a completely original paper.

Plagiarism can be defined as using someone else's ideas, language, words or other original materials without clearly acknowledging the source of information (Jocoy & DiBiase, 2006). It may be intentional (for example copying or purchasing papers from an online source) or unintentional (example failing to give credit for an author's ideas that you have paraphrased or summarized in your own words).

In this research, awareness means knowledge or understanding of a subject, issue or situation. An adult learner is referred to any student regardless of age who has adult responsibilities beyond college classes and for those adult responsibilities take priority in time of crisis. Distance learner can be defined as individuals who are having education or training geographically separated by physical distance from the instructor using computer and telecommunication facilities. However, we stress on academic integrity that includes honesty and responsibility in scholarship, students and faculties must obey rules of honest scholarship which means that all academic work should result from an individual own effort. Therefore, the intellectual contribution from others must be consistently and responsively acknowledged. Academic work completed in any other way is fraudulent.

2. Literature Review

In researches conducted by Smith et al (2007), Liu et al. (2007) and Madray (2007), they found that factors that contribute to plagiarism are both internal and external. For external factors, it might be pressure such as grade, time or task. For internal factors it includes lack of awareness of what plagiarism is all about, lack of understanding of what is plagiarism, lack of competence in referencing skills, inexperience in research writing and negative personal attitudes. No evidence was found to support either pressure or availability of internet facilities as the contributing factor in the rise of plagiarism. On the other hand, Kennedy (2002) found that experience with using of internet or teaching online is a major contributor to academic dishonesty. Distance learners communicate with their supervisors via the internet and have good knowledge of using the internet. This give opportunities for them to commit plagiarism. Most adult learners who are furthering their studies do so on a part time basis while having family commitment. Their salary is channeled to the consumption of their family rather than to buy several books for only one assignment. Hence, copying from the internet is the only solution. Moreover, teachers and universities usually neglect to take any action if they found students committing plagiarism. This idea is supported by Sterngold (2004) who admits that the advent of the internet has vastly increased the number of sources available to student and open the opportunity to copy and paste the information.

Understanding what is academic dishonesty and stopping the factors that lead to plagiarism maybe the key to reduce the frequency of cheating. Klein (2011) found that morality and ethic, cultural relativism, and social desirability are the major factors that contributed to the plagiarism activity. In addition, other factors may include lack of awareness, personal attitude, internet facilities, lack of self-confidence, laziness, family commitment, time and financial constrain, pressure and the neglects of the institutions. Students that fail to know the rules and regulations in their academic organization could make them commit plagiarism (Kelley, 2005).

McCabe et al (2003) conducted a research on the issue of whether an institution with honor codes in their faculty/institution would be more likely to report incidents of cheating. As a result, they found that;

1) institution with an honor code is more likely to believe students should be held responsible for peer monitoring
2) non-code faculty were more likely to take actions designed to catch cheaters
3) non-code faculty were more likely to deal with cheaters one on one
4) code faculty were more likely to perceive their institution's academic integrity policies to be fair and effective.

Gerhardt (2006) stated that students who commit academic dishonesty may be charged with plagiarism and even if no penalty is implemented, the charge itself may amount to unjustly harsh punishment. The accusation will inspire feeling of deep shame and may put a student's career in jeopardy. The accusation may be noted on the student's transcript and will be seen by graduate school admission committees and prospective employers.

Other than that, the typical honor code will provide a range of penalties including a failing grade in the course, academic probation or expulsion. The penalty will be assessed depending on the severity of the conduct. Besides that, in the survey conducted by Kimberly (2005), the majority of the students indicated that institution either lowered the grade on assignment or gave the student a failing grade in the class. The second most frequent response was to report the problem to their department chair. Another finding is that academic dishonestly rarely result in formal action against the student. Instead, plagiarism cases are more often handled by the faculty member approaching the student involved on one on one basis.

The consequences of plagiarism vary among different academic institutions. In Malaysia, there are several provisions either from public or private institutions of higher learning (IPTA or IPTS) which prohibit this academic dishonesty. For example, Paragraph 26 of the Educational Institutions (Discipline of Students) Rules 1976. laid down the punishment for those who commit plagiarism. The section provides that:

Paragraph 26(1): The Disciplinary Authority may at its discretion in lieu of taking disciplinary proceedings under Part V, impose a summary disciplinary punishment of a reprimand or a fine not exceeding fifty ringgit upon any student who commits a disciplinary offence under paragraph 3(7), Rules 6, 21, 22, 23 and 25 in the presence of or within the sight of such disciplinary authority.

2.1 Legal Provisions in Malaysia

In Malaysia, the statute governing student in university is Educational Institutions (Discipline) Act 1976 or known as Act 174. In exercising powers conferred by Subsection 22(2) of the Act, Minister of Higher Education of Malaysia had legislated several Orders inter alia is Educational Institutions (Discipline of Students) Rules 1976. The prohibition of plagiarism is clearly stated under Paragraph 8A (1) which stated that; A student shall not plagiarize any idea, writing, data or invention belonging to another person. Paragraph 8A(2) clarifies the act which amount to plagiarism namely the act of taking an idea, data or invention of another person and claiming that the idea, writing, data or invention is the result of one's own findings or creation or an attempt to make out or the act of making out in such a way that one is the original source or the creator of an idea, writing, data or invention which has actually been taken from some other source.

Paragraph 8(3) says that a student plagiarizes when he;

(a) Publishes, with himself as the author, an abstract article, scientific or academic paper, or book which wholly or partly written by some other person;

(b) Incorporates himself or allows himself to be incorporated as a co-author of an abstract, article, scientific or academic paper or book when he has not at all made any written contribution to the abstract, article, scientific or academic paper or book when he has not at all made any written contribution to the abstract, article, scientific or academic paper or book;

(c) Forces another person to include his name in the list of co-researches for a particular research project or in the list of co-authors for a publication when he has not made any contribution which may qualify him as a co-researchers or co-author;

(d) Extracts academic data which are the result or research undertaken by some other person, such as laboratory findings or filed work finding or data obtained through library research, whether published or unpublished and incorporate those data as part of his academic research without giving due acknowledgement to the actual source;

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

(e) Uses research data obtained through collaborative work with some other person, whether or not that other person is a staff member or a student of the University, as part of another distinct personal academic research of his, or for a publication in his own name as sole author without obtaining the consent of his co-researchers prior to embarking on his personal research or prior to publishing the data;

(f) Transcribes the ideas or creation of others kept in whatever form, whether written, printed, or available in electric form or in slide form or in whatever form of teaching or research apparatus or in any other form and claims whether directly or indirectly that he is the creator of that idea or creation; or

(f) Translate the writing or creation of another person from one language to another whether or not wholly or partly and subsequently presents the translation in whatever form or manner as his own writing or creation; or

(g) Extracts ideas from another person's writing or creation and makes certain modifications without due reference to the original source and rearranges them in such a way that it appears as if he is the creator of those ideas.

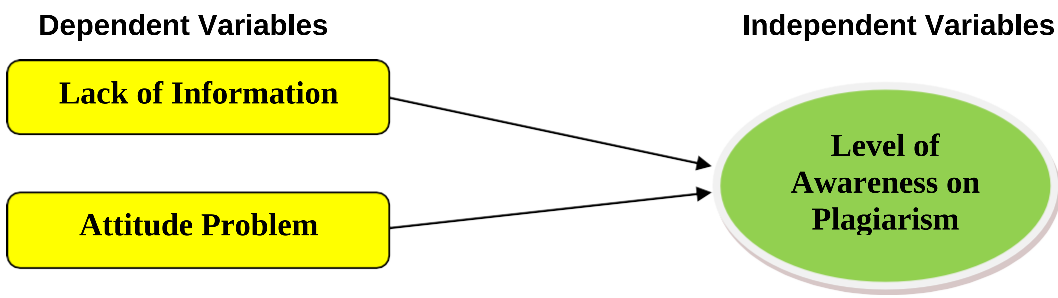
Majority of public universities in Malaysia applies the same provision and embark them in their own authority. For example, Section 6 of University of Malaya (Discipline of Students) Rules 1999, Section 6 of University Tun Hussien Onn Malaysia (Discipline of Students) Rules 2009 and so forth.

Paragraph 26 of the said Rules laid down the punishment for those who commit plagiarism. The section provides that :

Paragraph 26(1): The Disciplinary Authority may at its discretion in lieu of taking disciplinary proceedings under Part V, impose a summary disciplinary punishment of a reprimand or a fine not exceeding fifty ringgit upon any student who commits a disciplinary offence under paragraph 3(7), Rules 6, 21, 22, 23 and 25 in the presence of or within the sight of such disciplinary authority. Plagiarizer cannot participate from graduating programs and usually obtains a failing grade. Most universities also banned them from enrolling in another course for a period of five years. Junior faculty members could lose their jobs.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

3. Theoretical Framework



Hypothesis
H1: The level of awareness of plagiarism is high among adult learners
H2: The level of awareness on the legal implication of plagiarism is high among adult learners.

4. Methodology

This research paper uses primary data collected from 100 adult learners studying at public and private universities in Johor and Melaka. The questionnaires are distributed during the students' final meeting with their supervisor. The purpose of this questionnaire is to find out what students understand about plagiarism and its legal implications. The questionnaire consists of 3 sections;

Section A contain 5 basic questions of plagiarism Section B contain 36 multiple choices questions on plagiarism and Section C contain 3 demographic questions.

Students are given half an hour to complete the questionnaire. After receiving the data, we analyzed it using SPSS software. This section will explain the results from the SPSS analysis. Three tests have been applied namely, Croanbach Alpha, Multicollinearity Test, and autocorrelation followed by Multiple Linear Regression Analysis.

Reliability Statistics

Cronbach's Alpha	N of Items
.863	3

Table 1 : Croanbach Alpha /

Reliability Test Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Level Of Awareness (LOA)	5.0568	.732	.670	.916
Lack of Information (IVE)	5.1490	.795	.824	.729
Attitude Problem (IVA)	5.0392	.993	.807	.792

The results show that the reliability test consist of 86.3% of the data are reliable.

Coefficients

Model	Significant	Collinearity Statistic VIF
CONSTANT	0.550	
IVE	0.069	4.125
IVA	0.475	4.125

Table 2 : Muticollinearity Test / VI
Dependent Variable: Level Of Awareness

This table shows that there is no multicollinearity problem because the value for the independent variable is 4.125 which is more than 2 and less than 10.

Durbin Watson Table

SIGNIFICANT f CHANGE	DURBIN WATSON
0.000	1.643

Table 3 : Autocorrelation Test / Durbin Watson

No serious serial correlation problem that exists in the model. The Durbin Watson value must between 0 to 4. The result for this model is 1.643. It means that there is a positive autocorrelation between the variables.

Pearson's Correlation.

From the table, we can conclude that all the variables have positive relationship between the dependent and independent variables. By referring to the table, we can see that when there is a 1% increase in LOA(Level of awareness) there is 66.6%

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

increase lack of information (IVE). Following an increase of 1% in LOA, there is an increase of 62.6% in attittude problem (IVA).

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	.325	.538		.604	.550	-.771	1.421		
IVE	.599	.319	.499	1.879	.069	-.050	1.248	.242	4.125
IVA	.294	.407	.192	.723	.475	-.535	1.122	.242	4.125

Table 4 : Multiple Linear Regression

- Dependent Variable: LOA

The data shows the coefficient of IVE has a positive relationship with 0.599. it follow by the IVA which is 0.294. the significant level show that IVE is 0.069 and IVA 0.475. both variable are significant because the significant level is 0.05.

Hypothesis Testing

H_1: The level of awareness of plagiarism is high among adult learners

H_2: The level of awareness on the legal implication of plagiarism is high among adult learners

From the results, we accept the H_1 and H_2 and we conclude that the level of awareness of plagiarism and the level of awareness on legal implication of plagiarism is high among adult learners.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

		Gender	Semester	CGPA
N	Valid	33	31	23
	Missing	0	2	10
Mean		1.58	2.35	2.74
Median		2.00	2.00	3.00
Mode		2	2[a]	3
Std. Deviation		.502	.915	.689
Variance		.252	.837	.474
Skewness		-.321	.042	.392
Std. Error of Skewness		.409	.421	.481
Range		1	3	2
Percentiles	25	1.00	2.00	2.00
	50	2.00	2.00	3.00
	75	2.00	3.00	3.00

Table 5 : Frequency Distribution Statistics

- Multiple modes exist. The smallest value is shown

		Level Of Awareness (LOA)	Lack of Information (IVE)	Attitude problem (IVA)
Pearson Correlation	LOA	1.000	.666	.626
	IVE	.666	1.000	.870
	IVA	.626	.870	1.000
Sig. (1-tailed)	LOA	.	.000	.000
	IVE	.000	.	.000
	IVA	.000	.000	.
N	LOA	35	35	35
	IVE	35	35	35
	IVA	35	35	35

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

5. Conclusions and Recommendation

As noted earlier, universities should consider plagiarism as a serious problem. In order to reduce this misconduct, it is recommended that the universities should promote activities through campaigns that ban the activities of plagiarism. This can be presented to students in a variety of ways such as in classrooms, during freshman orientation week and by incorporating with library introduction programs. Through this campaigns, university can explain to their students as what amount to plagiarism as well as their legal implication that will be enforced by the university. If students commit plagiarism, the university hase to take action by enforcing the severe punishment so that become a lesson to others. The university also may find a software to detect the activity of plagiarism such as “Wcopyfind”, “Turnitin.com” and others. It will be easier for the university to trace the culprit of this academic dishonesty. Besides that, university administrators and lecturers should guide the students on how to cite properly, providing clear guidelines and policies according to each program and faculty and making sure that all students are responsible in their team projects.

In addition, lecturers should also be alert with this problem and they must take action if their student/s happen to commit plagiarism. Several punishment may be imposed by the lecturers as provided by the university rules and regulation such as downgrading the students’ marks, counseling the students, reject the assignments, enforce financial fines and finally, expelling the student.

The learners should also be ethically alert to the fact that committing plagiarism is something academically illegal. They must have self-motivation, be holistic, enthusiastically studying without copying the ideas of others. They must always be aware that there are legal implications that will be imposed for those copying the idea of someone else.

The impact of plagiarism is not only heated in the field of academia. In fact, it also has personal, social and economic consequences. Continual efforts to educate our students about the ills and the consequences of plagiarism are required. We hope that through these efforts, we could help students uphold academic honesty.

Gerhardt, (2006) in her research had proposed ten rules on how to avoid plagiarism.

1. Think about distinguishing your words and ideas from other voices.

2. If you cut content from a source and paste it somewhere else, put the content in quotation marks immediately, and note the source.

3. Put all borrowed content in quotation marks or an indented block, and cite your source.

4. Use quotation’s marks around any new or unusual term, and cite the source.

5. When you paraphrase, change the word, change the sentence structure, and cite your source after every sentence.

6. Provide the source for all ideas and definition that are not common knowledge.

7. Do not present fiction as fact.

8. If you are not sure whether a reference needs a citation, use one.

9. Keep a manual on proper citation form with you when you write.

10. Take your time.

To put in another way, we must learn to appreciate the work of others. We may benefit by exploring ideas from experts, thus giving us chance to develop our own taught and contribute our voice. The statutes and honor code has taught us to honor the hard work of others. If we respect other's idea, we can avoid plagiarism.

References

Dawson, M.M. & Overfiled, J. A. (2006). *Plagiarism: Do students know what it is?* Division of Health Science, School of Biology, Chemistry and Health Science, Manchester Metropolitan University, Oxford Road, Manchester M1 5GD, UK.

Gerhardt, D. R., (2006). Plagiarism in cyberspace: learning the rules of recycling content with a view towards nurturing academic trust in an electronic world. *Richmond Journal of Law and Technology,* Volume X11, Issue 3 (2006), http://law.richmond.edu/jolt/v12i3/article10.pdf

Jocoy, C., DiBiase, D., (2006). Plagiarism by Adult Learners Online: A case study in detection and remediation. *The International Review of Research in Open and Distance Learning,* Vol 7, No 1 (2006), ISSN: 1492.

Kelley, K. B. & Bonner, K. (2005), *Digital Text, Distance Education And Academic Dishonesty: Faculty And Administrator Perceptions and Responses,* JALN, Volume 9, Issue 1 – March 2005, pp 43-52.

Klein, D. (2011), Why Learners Choose Plagiarism: A Review of Literature, *Interdisciplinary Journal of E-Learning Objects,* Volume 7.

Liu, S., Lee, S., Liu, X., Magjuka, R. (2007). An empirical study on online MBA: cheating and plagiarism issues. *23rd Annual Conference on Distance Teaching & Learning.* Board of Regents of the University of Wisconsin.

Madray, A., (2007). Developing Students' Awareness of Plagiarism: Crisis and Opportunities. *Library Philosophy and Practice* 2007 (June).

McCabe, D.,L.K. Trevino and K. Butterfield.(2003),*Honor Codes And Other Contextual Influences On Academic Integrity : A Replication And Extension To Modified Honor Code Settings in Higher Education,*

Smith, M., Noorlaila Ghazali and Siti Fatimah Noor Minhad, (2007), Attitute Towards Plagiarism Among Undergraduate Accounting Students: Malaysian Evidence, *ASIAN Review of Accounting,* Volume 15, No. 2 , pp122-146

Sterngold, A. (2004), *"Confronting Plagiarism",* Change, Volume 36, pp 16-31 Wideman, M. A. (2008). Academic dishonesty in postsecondary education: A literature review.

Transformative Dialogues: Teaching & Learning Journal, volume 2, Issue 1.

http:www.nacada.ksu.edu NACADA's Advising Adult Learners Commission.
www.library illinois.edu.
www.macmillandictionary.com
www2.gsu.edu

Statutes

Educational Institutions (Discipline) Act Act 1976 or known as Act
174 Institutions (Discipline of Students) Rules 1976.
University of Malaya (Discipline of Students) Rules 1999
University Tun Hussien Onn Malaysia (Discipline of Students) Rules 2009

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

The effectiveness of forced-presentation method on students' learning experience

Ilyanie Hj Yaacob[1], Zuraida Jaafar[2], Sarini Ahmad Wakid[3], Mohd Zaini Nawahwi[4], Nur Intan Hasbullah[5], Nor'Aishah Hasan[6]

[1]School of Biology, Universiti Teknologi MARA Cawangan Negeri Sembilan, Kampus Kuala Pilah, 72000, Kuala Pilah, Negeri Sembilan, Malaysia
yanie_yaacob@ns.uitm.edu.my

[2]Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA Cawangan Negeri Sembilan, Kampus Kuala Pilah, 72000, Kuala Pilah, Negeri Sembilan, Malaysia
zuraida@ns.uitm.edu.my

[3]School of Biology, Universiti Teknologi MARA Cawangan Negeri Sembilan, Kampus Kuala Pilah, 72000, Kuala Pilah, Negeri Sembilan, Malaysia
sarini@ns.uitm.edu.my

[4]School of Biology, Universiti Teknologi MARA Cawangan Negeri Sembilan, Kampus Kuala Pilah, 72000, Kuala Pilah, Negeri Sembilan, Malaysia
zaini@ns.uitm.edu.my

[5]School of Biology, Universiti Teknologi MARA Cawangan Negeri Sembilan, Kampus Kuala Pilah, 72000, Kuala Pilah, Negeri Sembilan, Malaysia
Intan154@ns.uitm.edu.my

[6]School of Biology, Universiti Teknologi MARA Cawangan Negeri Sembilan, Kampus Kuala Pilah, 72000, Kuala Pilah, Negeri Sembilan, Malaysia
aishahnh@ns.uitm.edu.my

Abstract

The aim of this study is to attain more understanding about students' preference and perception on different methods of group presentation during lecture session. The study involved 97 students from Diploma in Microbiology in UiTM Cawangan Negeri Sembilan, Kampus Kuala Pilah. All students were exposed to two methods of group presentation, which are named as 'conventional-presentation method (CPM)' and 'forced-presentation method (FPM)'. Data were obtained from self-administered questionnaire which measured students' preparation, learning experience, assessment and overall satisfaction for both methods. The responses were measured using a 10-Point Interval Scale rating with 1 showed "strongly disagree" whilst 10 showed "strongly agree". Results showed that there are significant difference on perception between mean score of conventional-presentation method and the mean score of forced-presentation method for construct learning experiences, assessment, and overall satisfaction (p-values are less than 0.05). It can be concluded that students preferred forced-presentation method to enhance their learning experiences.

Keywords: Perception, Learning Environments, Group Presentation, Presentation Method.

1. Introduction

The Malaysian Education Blueprint 2015-2025 (Higher Education) is formulated based on the vision and aspiration of Malaysian Education Development Plan (2013 – 2015) and National Higher Education Strategic Plan in educating students who are knowledgeable, skilled and talented to face the challenges of the 21st century. Shift 1 of the blueprint aims to foster graduates who are holistic, balanced and entrepreneurial in line with the National Education Philosophy. To produce holistic, entrepreneurial and well-balanced graduates requires transformation and paradigm shift in the form of curriculum design, learning activities and tasks that are used for assessments (Ministry of Higher Education, 2016).

Presentation is one of the assessment tasks used in the assessment of the course for the affective learning outcome domain (Ministry of Higher Education, 2016). Students are given assignments to be completed and presentation of assignments is carried out during student assessment or scoring of student groups. Presentation is one of the learning methods that are carried out for the determination of continuous evaluation assessments that are often chosen by a lecturer in their course of study.

Fallows and Steven (2000) stated that today's challenging economic situation means that it is no longer sufficient for a new graduate to only have knowledge of relevant academic subject; increasingly it is necessary for students to gain those skills which will enhance their prospects of employment. Employability skills include the following abilities: the retrieval and handling of information; communication and presentation; planning and problem solving; and social development and interaction; creative thinking, critical thinking; and active and reflective application of knowledge (Fallows and Steven, 2000; Driscoll, 2000). Mastery in presentation techniques is important for students to succeed in their future workplace. Therefore, it is important to strengthen the skills in the academic curriculum.

Through presentations during their studies, students can adapt and become self-reliant to go to work after graduation. Thus, a student's presentation in the classroom becomes an essential element in delivering positive learning experiences. Student learning and attitudes have significantly increased globally in recent years was affected by the use of PowerPoint (a form of multimedia) presentations in classroom instruction (Nouri and Shahid, 2005). This study examined the uses of CPM and FPM using PowerPoint. An experiment was conducted which included a treatment-control design, in a classroom setting throughout a semester.

A study by Nouri and Shahid (2005) shows that normal presentation by using PowerPoint, did not cause the students to perform better on quizzes or exams. Perhaps, the use of PowerPoint could be beneficial for more difficult and challenging topics. However, Butler and Mautz (1996) found that there is no interaction between students' preferred presentation style and exam performance. The study also finds that the students have more favourable attitudes toward both the presenter and the presentation when PowerPoint is used to deliver instruction.

There is little consistent evidence, however, to show that CPM using PowerPoint leads to significantly better learning and significantly better grades than teaching by more conventional methods. A majority of studies shows that use of PowerPoint is not associated with any significant improvement in students' grades (Rankin and Hoaas, 2001).

In our study, we suggested student to use FPM in order to enhance student's knowledge and understanding of certain topic especially for more difficult and challenging chapters. Using FPM, student need to engage more to the audience and interacts more with the other student. They also need to give questions to be answered by other students, their instructors or friends. This will lead to an active presentation rather than using a passive presentation which only the presenter presents and explaining their topics to the audience. According to Tesfaye and Berhanu (2015), students will learn best when learning atmosphere is lively, as each of them involved mentally in terms discovery of knowledge, investigation and interpretation of data. In this paper, we will compare the student's preferences between CPM and FPM towards better students learning experience, based on their perception.

2. Research Methods and Study Design

2.1 Participants

A total of 97 students from Diploma in Microbiology in UiTM Cawangan Negeri Sembilan, Kampus Kuala Pilah participated in the assessment of their preferences and perceptions on different presentation methods.

2.2 Presentation methods

2.2.1. Conventional-presentation method.

In CPM, students were asked to deliver the presentation in traditional way. This means each group presentation were set to be delivered within time given, by the presenter of each group. After each presentation, each group was given time for question and answer session. The group will only receive questions (if any) from the audience that are interested to know more about the topics. It means, the group will only answer questions which were related to their own topics only. The assessment for CPM focused mainly on the verbal communication, with various sub-attributes, such as clear delivery of ideas, confident delivery of ideas and response of presenters towards the question given (Ministry of Higher Education, 2016).

2.2.2. Forced-presentation method.

In FPM, students need to fulfill several criteria to obtain full marks. It involves five steps; presentation, answering compulsory questions from the lecturer (about their own topics), answering compulsory questions from the selected audience (about their own topics), giving compulsory questions to the selected audience (about the own topics) and answering compulsory question from the presenter (about different topics). In this system, after each presentation, each group was given time for question and answer session. Each group is compulsory to answer question, from both the educator and selected audience, and each group will receive questions related to their own presentation, as well as topics from the other presentation. The assessment for FPM will not focused on the verbal communication only, but also their ability to answer and give quality questions to their audience. Table 1 showed the example of FPM template which involved presentation of four topics from four separate groups in a same class. However, during question and answer session, apart from the compulsory requirement, other groups were also allowed to ask questions, and will be not counted in the assessment template, to ensure the equality of marks to each group.

Table 1 Forced-presentation method's template

Group Number	Group 1	Group 2	Group 3	Group 4
Presentation (5 marks)				
Answering questions from lecturer - own topic (5 marks)				
Answering questions from other groups - own topic (5 marks)	(from group 3)	(from group 4)	(from group 2)	(from group 1)
Asking question to other groups - own topic (5 marks)	(to group 2)	(to group 1)	(to group 4)	(to group 3)
Answering questions from other groups - different topic (5 marks)				
Total (25 marks)				

2.3 Data Collection and Process

The study took place in a same semester (September 2017 – January 2018) and was structured as follows. 97 students from 4 different classes were assigned with two presentation tasks. All students experienced both CPM and FPM which were designed as in table 2.

Table 2 Students' Participation

	Class A	**Class B**	**Class C**	**Class D**
Presentation 1	CPM	CPM	FPM	FPM
Presentation 2	FPM	FPM	CPM	CPM

All the selected participant students underwent a series of self-administered questionnaire after both session of presentation. The questionnaire was adapted from Fieger (2012) to obtain the students' perception on four different constructs, which are: *Students' preparation* (6 questions about students' plans and preparation in term of knowledge and materials, presentation flow, students' mental preparation and students' physical preparation)*; Learning experience* (10 questions about how the presentation encourage their communication skills, teamwork, and critical thinking)*; Assessment* (5 questions about students' perception on how they will be assessed at appropriate level)*; and last part was Overall satisfaction (*9 questions about students' satisfaction at various angle in presentation).

2.4 Measures and Data Analysis

The study involves four sections of the self-administered questionnaire; Section A, Section B, Section C and Section D. Section A consists of items that measure 'Students' Preparation' before the presentation conducted while section B consists of items that measure 'Learning Experience' while undergo both methods of presentation elements. Section C consists of items measuring 'Students' Perception' on their presentation 'Assessment' and items in section D measuring the 'Overall Satisfaction' of students towards both methods of presentation. All responses were measured using a 10-Point Interval Scale (rating) with 1 = "strongly disagree" and 10 = "strongly agree"

The data were analysed by using Statistical Package for Social Sciences (SPSS). Descriptive statistics, such as mean was calculated. Cronbach's Alpha coefficient was assessed to measure the internal consistency. It is used because there are multiple Likert Scale questions in the survey and to determine if the scale is reliable or not. In order to proceed to parametric analysis, the measure of skewness for each constructs were calculated. The score is normally distributed if the absolute value of skewness is less than and equal to ±1.0 but below ±1.5 also still acceptable. Besides, Paired sample t-test was done by comparing the mean score differences between both presentation methods.

3. Results Analysis

The measures of the skewness were ranging from -0.234 to -0.607 and kurtosis were ranging from -0.311 to 0.092 for all constructs of CPM while the skewness and kurtosis were ranging from -0.984 to -0.327 and -0.708 to 1.000 respectively for all constructs of FPM. From these results, it indicates that the scores for all constructs are normally distributed. According to Awang (2014, 2015), the data is normally distributed if the absolute value for skewness and kurtosis is 1.0 and lower. Therefore, parametric analysis can be carried out.

Table 3 shows the reliability analysis to verify the reliability of the instruments for the Students' Preparation, Learning Experience, Assessment and Overall Satisfaction. Based on Table 3 the Cronbach's Alpha value was greater than 0.7 for all constructs. Sekaran and Bougie (2010) and Awang (2011, 2012) stated that the Cronbach's Alpha value greater than 0.6 indicate the instruments are reliable to be employed for research.

Table 3 The reliability assessment for all constructs

Variable	No. of Items	Cronbach's Alpha (n = 97)	
		CPM	FPM
Students' Preparation	6	0.941	0.935
Learning Experience	10	0.961	0.955
Assessment	5	0.964	0.950
Overall Satisfaction	9	0.967	0.977

The mean score of four constructs in this study were shown below in Fig. 1. The scores obtained compare the perception of respondent towards the CPM and FPM.

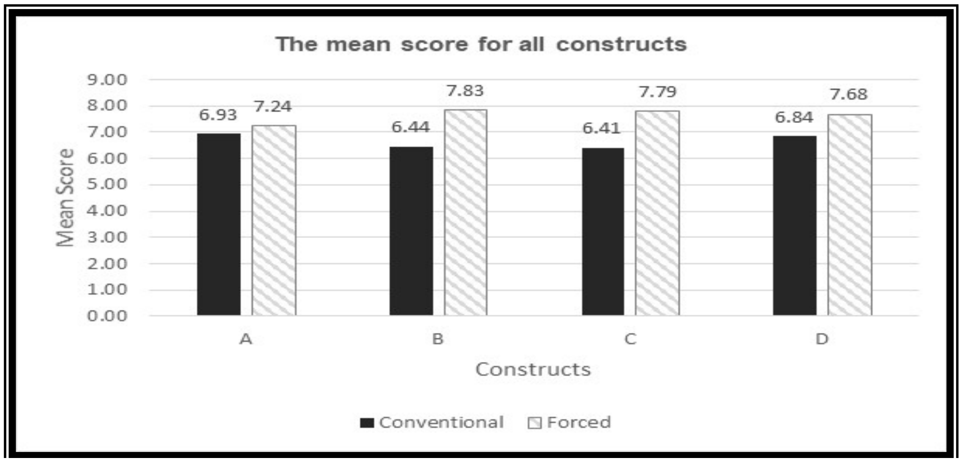


Fig. 1: The mean score between Conventional and Forced Presentation Method

The mean score of all constructs were 6.41 and above for CPM, and 7.24 and above for FPM. Since this study used a 10-point scale, the results indicate that all the constructs in this study were at a good level. The table also shown the mean scores of FPM were greater than FPM.

Further, a paired sample t-test was carried out on each of the four constructs to determine whether there is significant difference between mean score of CPM and mean score of FPM (Table 4).

Table 4 Mean paired difference score for each construct

Construct	Paired Differences	t-values	p-values	Decision
Students' Preparation	-.30584	-1.409	.162	Not significant
Learning Experience	-1.41237	-5.152	.000	Significant
Assessment	-1.38763	-4.594	.000	Significant
Overall Satisfaction	-.94433	-3.682	.000	Significant

a. Significant at $\alpha = 0.05$

Table 4 provides the mean paired difference score for each construct where mean score of CPM - mean score of FPM. The t-value and p-value are also provided. It is seen that all construct exhibit negative mean paired difference score ranging from -1.41237 to -0.30584. The "Learning Experience" and "Assessment" has the largest negative mean paired difference score while "Students' Preparation" and "Overall Satisfaction" has the smallest negative paired difference score. Furthermore, this result was supported by the t-values and p-values as above. It is found that there is significant different on perception between mean score of CPM and the mean score of FPM for construct Learning Experience, Assessment and Overall Satisfaction since all p-values are less than 0.05 except Students' Preparation.

4. Discussion

This study was designed to assess which method of presentation students prefer in their learning session and differences in term of students' perception between CPM and FPM. With regards to students' preferences and perception, it can be concluded that descriptively, students preferred FPM for all dimensions; preparation, learning experience, assessment and overall satisfaction to enhance their learning compared to CPM. Meanwhile, the findings regarding the differences in term of students' perception between CPM and FPM showed some significant differences for all dimensions except students' preparation before underwent presentation. This proved that students are more motivated to enhance their learning experience through FPM although they understood that they will be forced to ask and be asked during the presentation. However, students did the same effort to prepare their presentation for both methods.

5. Conclusions

As a conclusion, it can be deduced that the students prefer FPM in terms of learning experience, assessment and overall satisfaction to enhance their learning compared to CPM.

References

Awang, Z. (2011). *A Handbook on SEM: Structural Equation Modeling,* Universiti Teknologi Mara, Kelantan.

Awang, Z. (2012). *Structural Equation Modeling Using AMOS Graphic,* UiTM Press, Shah Alam.

Awang, Z. (2014). *A Handbook of SEM for Academicians and Practitioners. The Step by Step Practical Guides for the Beginners*, MPWS Rich Publication, Bangi.

Awang, Z. (2015). *SEM Made Simple: The Gentle Approach of Learning Structural Equation Modeling*, MPWS Rich Publication, Bangi.

Butler J. B. & Mautz, R. D. Jr. (1996). Multimedia presentations and learning: A laboratory experiment Issues in Accounting Education, *11* (2), 259-280.

Driscoll, M. P. (2000). *Psyhology of Learning for Instruction.* 2nd edition, Needham heights, MA: Allyn & Bacon.

Fallows, S. & Steven, C. (2000). Building Employability Skills into the Higher Education Curriculum: A University-wide Initiative. *Education & Training*, *42*(2), 75-83.

Fieger P. (2012). Measuring student satisfaction from the Student Outcomes Survey. *National Center for Vocational Education Research.*

Ministry of Higher Education (2016). iCGPA Rubric Learning Outcomes Assessment Guide. Putrajaya: Ministry of Higher Education.

Nouri, H & Shahid, A. (2005). The Effect of PowerPoint Presentations on Student Learning and Attitudes. *Global Perspectives on Accounting Education. 2*.

Rankin E. L., & Hoaas, D. J. (2001). The use of PowerPoint and student performance. Atlantic *Economic Journal*. *29.* 113-113. 10.1007/BF02299936.

Sekaran, U. & Bougie, R. (2010) *Research Methods for Business: A Skill Building Approach*, John Wiley & Sons Ltd., West Sussex

Tesfaye, S. & Berhanu, K. (2015). Improving Student's Participation in Active Learning Methods: Group Discussions, Presentations and Demonstrations: A Case of Madda Walabu University Second Year Tourism Management Students of 2014. *Journal of Education and Practice*, 6 (22).

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Promoting Shared Prosperity In Developing Countries: The Relevance Of Governance From Islamic Perspective

Nor Hazila binti Ismail[1], Maizura Mohd Isa[2] and Associate Professor Dr Mohamed Eskandar Shah Mohd Rasid[3]

[1]Senior Lecturer, Finance Department, Faculty of Business and Management, Universiti Teknologi Mara (UiTM) Johor, Segamat, Johor, Malaysia
norha884@johor.uitm.edu.my

[2]Senior Lecturer, Finance Department, Faculty of Business and Management, Universiti Teknologi Mara (UiTM) Johor, Segamat, Johor, Malaysia
maizura2610@gmail.com

[3]Associate Professor, International Center for Education in Islamic Finance (INCEIF), Kuala Lumpur, Malaysia
eskandar@inceif.org

Abstract

The extreme inequality in the distribution of wealth, income and opportunity undermines and distorts the sharing of prosperity, democracy, economic health and vitality, ecological balance, physical health and culture of the nations. In April 2013, the issue of greater inequalities and social exclusion reckoned to be the result of economic growth led the World Bank to set the new goals, to end extreme poverty and promote shared prosperity. Interestingly, the approach of the contemporary solution is largely in consonance with the *maqasid* or objectives of the *Shari'ah.* Islam is a universal religion and addresses the entire mankind not the believers alone. It is, therefore, no surprise that people irrespective of faith do often think along Islamic lines. This study analyzed the impact of the governance from Islamic perspective on poverty, by adopting a cross-country approach. Specifically, the study examined the impact of Islamic governance structures on the poorest quintiles of the population by evaluating the relationship between the factors and the changes in the per capita income of the poor of the developing countries. This study applied panel regression to examine the significance of the pillars of the governance from the Islamic perspective towards the shared prosperity of the developing countries. It is hoped that this study will help determine if the Islamic pillars of the Islamic Governance can serve as an effective mechanism for poverty eradication in the respective countries.

Keywords: Poverty, Shared Prosperity, Developing countries

1. Introductıon

In April 2013, the issues of greater inequalities and social exclusion led the World Bank to set the two new goals which are first to end extreme poverty and second is to promote shared prosperity. As defined by World Bank, promoting the shared prosperity means working towards the increments of the income and welfare of the poorer segments of society wherever they are, be it the poorest of nations or thriving, middle income countries. The shared prosperity goal has become pertinent: as developing countries grow their economies and lift millions out of poverty, they tend to experience growing inequality. Therefore, in order to demote inequality and fostering the shared prosperity, continuous efforts by the government are specifically required, from the perspective of economy and social. Both the Al Quran and sunnah indicated that the principles in the areas of constitutional affairs cannot be omitted from any government system. The application of these constitutional principles and guidelines in the Islamic political system are considered as the highest value that will bring a major impact in promoting an inclusive economy and prosperous society.

1.1 Poverty and Shared Prosperity

It is reported in the World Bank Report that poverty has declined rapidly over the past three decades. Dollar and Kraay (2014) revealed that the reduction in poverty has been due to contribution by a fast growth initiated by developing countries especially in China and India as well an evidence of the association between a rapid growth and a sharp decline in absolute poverty in all regions of the world. However, the humanity is still in exigent and defy atmosphere. It was stated that 1 billion of the world community is still in the state of poverty even in the availability of resources and technology today (Worldbank, 2013). Furthermore, the issue of inequality and social exclusion complement the escalating of prosperity in many countries. Hence, the World Bank Group has established two goals to guide its strategy in tackling these issues. The first goal is to end extreme poverty, as defined by the global extreme poverty measure of $1.25 a day, adjusted for Purchasing Power Parity (PPP). More specifically, the World Bank Group seeks to orient its programs so that the global extreme poverty rate declines to below 3 percent by 2030. The second goal is to promote “shared prosperity” by helping every country to foster income growth of the bottom 40 percent of the population (World Bank, 2013).

Shared prosperity is defined “in terms of the growth rate of incomes in the bottom 40 percent of households”, and the World Bank has made a public commitment to support policies that foster shared prosperity in the developing world. Concerns about shared prosperity are also widespread in advanced economies, where many fear that growth no longer benefits the bottom half in terms of income distribution (World Bank, 2013). The shared prosperity goal focuses on the promotion of a combination of growth and greater equality to complement the poverty mitigation target. It is crucial to consider that the process in achieving these two goals are sustained over time and across generations - which requires promoting social justice, equality and maintain distribution of wealth. The situation brought this study that aims to investigate how the elements of the governance from the Islamic perspective can supplement the shared prosperity in mitigating poverty.

1.2 Shared Prosperity and Governance from Islamic Perspective in Mitigating Poverty

There is a general consensus that economic growth is necessary but not sufficient for poverty reduction. Conventionally, economists have quantified growth as an increasing *per capita* income or gross domestic product. But if the distribution of income is skewed and the poor part of the population is getting poorer even while the average income increases, people would hesitate to call this as development (Dollar and Kraay, 2014). Hence, GDP is an incongruous and even misrepresentative measure for sustaining well-being continuously. A numerous level of current income does not promise the same in the future. Undeniably, it may actually diminish the tomorrow well-being if it consumed the capital basis of the current society. Consequently, GDP *per capita* is not comprehensible with any approach to sustainable development.

Evidently, income inequality is excessive and escalating in many developing countries (Rauniyar and Kanbur 2010; Milanovic and Lakner 2013; Chen and Ravallion 2013; Ravallion 2012). The status quo makes unfeasible for the developing countries to achieve less than 3 percent poverty target by 2030 (World Bank, 2014). Economic growth would be helpful in reducing poverty as well as promoting prosperity if the growth becomes more sustainable and inclusive in all countries especially developing economies.

As noted by Ahmad et al (2013), Islam is a universal religious and provides the path to lead life. Therefore, Islam brings prosperity not only in the worldly life but also in the hereafter. They mentioned that some studies conclude that religions have relationship with economic growth and human development. If the glorious principles of Islamic teachings are implemented, then there will be peace and prosperity all over the world. Islam explains the role of state, social and economic justice, concept of brotherhood, principles of earning and spending and all other related rules and regulations for the smooth running of social and economic systems. These principles ultimately establish economic growth all over the world.

Sayed (2004) concluded that a good Islamic governance commands societies and individuals alike to promote social justice, equality and maintain distribution of wealth. He continued that Shariah laws are dynamic in that they are everlasting and not bound by individualistic interest. In addition, the vital role of a good governance from Islamic perspective also allows people to earn their living in a fair and profitable way without exploitation of others, therefore the whole society may benefit. As mentioned by Esfandiar et. al.,(2017), Islam emphasises the practice of justice and equality, truthfulness and transparency, as well as protection of minorities, accountability and adequate disclosure, just as it prohibits all forms of exploitation, inn all walks of life including business dealing.

Ali (2015) explained that Islamic view of good governance is a qualitative approach and not mechanical. According to him, the major features of good governance can be precised under seven fundamentals components which are includes the rules of law, khilafah, accountability, transparency, justice, equity and Al-amr bil maruf wa nahi an al-munkar.

1.3 Governance and Sustainable Development from Islamic Perspective.

Interestingly, the extensively discussed literatures proof that the approach of the Sustainable Development from Islamic Perspective is largely in consonance with the principles of governance in Islam. Islam is “a universal religion and addresses the entire mankind not the believers alone”. The main objectives of the Islamic law put broadly are “to promote the well-being of *all* mankind which lies in safeguarding their faith (*din*), their human self (*nafs*), their intellect (*aql*), their posterity (*nasl*) and their wealth (*maal*)” (Hasan, 2006).

It is appropriate to focus upon the oft-neglected Islamic perspectives and its wisdom on sustainable development, and allied fields of social justice, man’s spirituality and his role as *khalifatAllah fi al-Ard* with responsibility to restore the eco-balance and ensure the well-being of the living earth and its creatures. Human welfare objectives from Islam’s perspective should also be pursued in line with its Unitarian vision of *tawhid* and for the realization of human dignity (*karamah*). Al Jayyousi (2014) affirmed the four approaches of the sustainable development based on the carrying capacity approach (mizan), ratio approach (Ihsan), Socio approach (Arham) and Eco approach (Tasbeeh). He stressed that the sustainable development should be seen as a progression rather than as a project or product since the real world is dealing with complex problems that need multiple solutions and perspectives.

The application of the teachings of Al-Quran and Sunnah safeguards sustainable development, not only for the Muslims but also for the world on a just basis. Islam reaches out through the Quran and Sunnah on how to achieve sustainable Development. Several texts or verses of the Quran and the Sunnah of the Prophet SAW provide the general guidelines and principles pertaining to economic development.

Surah al-Qasas (28), verse 77: *“But seek, with the (wealth) which Allah has bestowed on thee, the Home of the Hereafter, nor forget thy portion in this world: but do thou good, as Allah has been good to thee, and seek not (occasions for) mischief in the land: for Allah loves not those who do mischief”,* provides evidence that Allah prohibits actions of damaging the earth. It is clear in this verse that Allah encourages us to enjoy His earthly provisions but warns against actions that would ruin this world because Allah hates those who damage the earth.

The perspective of Islam on sustainability may be further grasped through an examination of the “teachings” and “lifestyles” of *Prophet Muhammad (PbUH)* and how his teachings be the principal to the development of Islamic civilization. “He taught the Muslims to take education seriously, engage in social development by developing the characters of piety, humility and leadership”. “His teachings condemn isolation, alienation, greed and discrimination while replacing them with the positive concepts of social interaction, integration and inclusiveness, volunteerism and equality”. Prophet Muhammad SAW reported to have said: “*if the Hour (Judgment Day) is about to be established and one of you is holding a palm shoot, let him take the advantage of even one second before the Hour is established to plant it”.*

Sustainable development as defined from an Islamic perspective, “as a multi-dimensional process that seeks to strike a balance between economic and social development on one side, and the environment on the other". It urges mankind to use resources in the best possible way, accounting for the environment upon which those resources rely (Nouh, 2011). This concept of sustainable development is deemed to refer "to the balanced and simultaneous realization of consumer welfare, economic efficiency, social justice, and ecological balance in the framework of an evolutionary knowledge-based, socially interactive model".

There are some elements that are considered by Shari'ah as a unique perspective of Islam in matters of value society and these elements are necessary for social cohesion. These elements are the main indicators of sustainable development for the betterment of individuals and society. These elements are: *Faradh* (Responsibility), *Shura* (Empowerment) and *Al'adl wal ihsan* (Equilibrium). The elaboration of these elements is discussed further in the Research Methodology section under the Theoretical Framework segment.

Concisely, the relationship between these governance and the sustainable development from the Islamic perspective, to the extent that they are important, comes mostly through their effects in promoting an inclusive economy and prosperous society. This is extensively discussed in the poverty and governance nexus literature. However, there is a dearth of empirical studies in developing countries on the impact of these macroeconomic policies and institutions, incorporating the elements of economic growth and human development from an Islamic perspective that might be particularly conducive to promoting shared prosperity for mitigating poverty. Therefore, this study represents an attempt to provide the analysis empirically.

2. The objective of the study

This study attempts to analyze the impact of the pillars of governance from Islamic perspective on shared prosperity, adopting a cross-country approach. Specifically, this study will examine the relationship between the governance pillars from Islamic perspective and the shared prosperity of the developing countries. It is hoped that this study will help to determine the Islamic pillars of governance that can be served as an effective mechanism for prosperity sharing in the respective countries.

3. Research Methodology

3.1 Data Collection and Sample

The used sample roughly consists of 15 developing countries namely Bulgaria, Costa Rica, Dominician Republic, Ecuador, El Salvador, Moldova, Montenegro, Panama, Paraguay, Peru, Romania, Serbia, Thailand, Turkey and Ukraine. The period of study is from 2005 to 2014.

3.2 The Empirical Model

To achieve the objective of the study, there are two stages of procedure that need to be applied which first is the estimation procedure and second is the index development.

Firstly, this study uses panel regression static model to examine the significance of the governance pillars from the Islamic perspective towards the shared prosperity of the developing countries. We made estimations by Least Square method. This allows checking the problem of heterogeneity of countries. Then, we proceed with the Hausman test which allows of choosing the specific fixed or random effects model. This general formulation of the model used in this study can be specified as follows:

$$SP_{it} = \alpha + \beta(IP_{it}) + \mu t \;;$$

Where, SP_{it} **= Shared Prosperity$_{it}$** is proxied by Shared Prosperity Indicator developed by Rosenblatt and McGavock (2013) as the **dependent variables**. The shared prosperity indicator has its intellectual origins in the concept of quintile income. Defined as the per capita income of the poorest quintile (bottom 20 percent) of the population, quintile income was proposed as a simple welfare measure that is both easy to calculate and easy to understand. It draws on Rawlsian notions of promoting the welfare of the least fortunate members of society, and also has the pragmatic feature of comparability with traditional macroeconomic welfare measures such as per capita income.

Therefore;

$$SP(x) = \left(\frac{s(x)}{0.4}\right) * y(x)$$

(Equation 1)

Where;

SP(x) = shared prosperity index
s(x) = share of total income accruing to the bottom 40% of the population
y(x) = the per capita income of the total population of a country with income profile *x*

This expression shows that the shared prosperity indicator is similar to the Sen index of real income which is the product of inequality measure (the income share of the poorest 40 percent) and the per capita income of the total population. In discrete time, the percentage change in the shared prosperity indicator is simply the sum of two growth rates: the growth rate of the share of income accruing to the poorest 40 percent and the growth rate of the per capita income of the total population.

The independent variable (**IP_t**) is the dimension of Islamic Pillars of Governance quoted by Aburouni and Sexton (2004) and Ahmad et al (2013). These elements are:

1. *Faradh* (Responsibility)
2. *Shura* (Empowerment)
3. *Al'adl wal ihsan* (Equilibrium)

***Faradh* (Responsibility)**
"Individual and society have the responsibility to make use of welfare in a responsible way". "Humans are responsible as God's vicegerents (*Kalifah)* for the care of the earth". God says in the *Qur'an*: *"It is God who has created for you all that is on earth….And remember when your Lord said to the angels: 'Verily, I am going to place a viceroy (mankind) on earth.' They said: 'Will You place therein those who will make mischief therein and shed blood, -while we glorify You with praise and sanctify You?" God said: "'Verily, I know better what you do not know"* (Al-Baqara (2), 29- 30:5-6).

***Shura* (Empowerment)**:
"Human beings should fully participate in decision making and implementation in their life. In Islamic perspective the empowerment means the consultative (*Shura*) decision making of all levels of the Islamic society". It pertains collectively to the decision making on social matters. Such a role of *Shura* is close to its meaning in the *Qur'an*: *"And who (conduct) their affairs by mutual consultation"* (Ash-Shura (42), Verse.38:487).

***Al'adl wal ihsan* (Equilibrium)**:
"Individuals have the freedom to act, but must do so with manner from welfare of the present and future generation", God says: *"if you loan God beautiful loan, He will double it in your credit, and He will grant your forgiveness".* This is in reference to interest-free loans which God calls "beautiful loans" (Qard Hasan).

The indicators used in this study are generally retained in the Democracy Barometer Database (2016). We proposed the indicators as below:

Table 1: Proposed Dimensions and Indicators

Dimension	Indicator
Faradh (Responsibility)	Government Effectiveness
	Regulatory Quality
	Control Of Corruption
	Political Stability & Absence Of Violence
	Transparency
	Military Expenditure.
Shura (Empowerment)	Voice & Accountability
	Competitiveness Of Election
	Openness Of Election
	Mutual constitution of power
	Equality Of Participation.
	Effective Participation.
	Representation
Al'adl Wal Ihsan (Equilibrium)	Rule Of Law
	Right To Physical Integrity
	Right To Free Conduct Of Life
	Freedom To Associate
	Freedom Of Opinion

Second, to facilitate the construction of the index, this study applied the construction of Financial Inclusion Index by Mandira (2015) in order to develop our Islamic Prosperity Index (IPI). The IPI will explain the implication of Islamic pillars of governance towards the shared prosperity of the country based on the ranking of the index. The Index expectantly reveals which countries function more sustainably, promoting the shared prosperity based on the Islamic Pillars of governance.

To define the index, firstly is to construct an individual index based on the dimension (faradh (F_i), shura (S_i) and Al'adl wal Ihsan.

As in the case of these indexes, our proposed IPI is computed by first computing a dimension index for each dimension of prosperity. The dimension index d_i, (equation 2) measures the country's achievement in the i^{th} dimension of prosperity.

We start with applying the max-min procedures constructing the individual index as formally below:

$$di = \frac{Ai - mi}{Mi - mi}$$

(Equation 2)

where,

- *Ai* is the observed indicator value(after imposition of bounds), and
- *di* is the new, rescaled, index-number representation with a value ranging from 0 to 100.

Subsequently, if all of the variables are available for country *i*, an equal weight will be given to each variable. The higher the value of *di*, higher is the country's achievement in dimension *i*. If *n* dimensions of Islamic Prosperity are considered, then, a country's achievements in these dimensions will be represented by a point X = (d_1,d_2,d_3,….,d_n) on the *n*-dimensional space. In the n-dimensional space, the point O = (*0*, 0, 0,…,0) represents the point indicating the worst situation (zero achievement) while the point W = (*w1, w2,…..wn*) represents an ideal situation indicating the highest achievement in all dimensions. The location of the achievement point X vis-à-vis the worst point O and the ideal point W will together determine a country's level of IPI. An inclusive economy system will have an achievement point close to W and away from O. In our proposed IPI, we use a simple average of the normalized Euclidian distance between X and O and the normalized inverse Euclidian distance between X and W. By construction, this Islamic Pillars of Prosperity lies between 0 and 1.Eventually, the Islamic Pillars of Prosperity Index for country *i* is defined as:

$$IPI = \frac{Fi + Si + AAWIi}{3}$$

(Equation 3)

4. Data Analysıs and Results

4.1 Estımatıon results

This section describes the indicators of each dimensions of Islamic Prosperity Index which provides the static panel regression results of the faradh, shura and al adl'wal ihsan dimension for developing countries. The techniques of estimations used to study the link between the shared prosperity and the indicators of the dimensions (Faradh, Al Adl'Wal Ihsan and Shura) are Fixed effect and Random Effect model. We did the estimation test for all indicators mentioned beforehand. As shown in Table 2, 3 and 4, the majority of the regression test appreciates the relevance of random effects (p>5%) for developing countries intended for faradh, al adl'wal ihsan and shura respectively. İt shows that in developing countries, the level of *faradh* (responsibility) is more translated by the how effective the government, the regulation quality of the countries and level of corruption being controlled in the countries. The more the people able to participate in selecting their government indicated how the government are accountable and leads to less corruption. The most relevant indicators that explain the level of *shura* (empowerment) promoted in developing countries are voice and accountability and equality of participation where both indicators positively influence the inclusiveness of the economy. Whereas in maintaning *al adl'wal ihsan* (equilbirium) the right to free of conduct and freedom to associate are significantly positive fostering the prosperity sharing to the poor in the developing countries. Yet, the countries rule of law negatively related to shared prosperity in mitigating the poverty.

Hence, based on the estimation results, we believed that it is sufficiently to explain the significant effect of *faradh* (responsibility), *Shura* (empowerment) and *al adl' wal ihsan* (equilibrium) to promote shared prosperity in the developing countries. Therefore we proceed with the construction of the index.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

	(OLS)	(Random Effect)	(Fixed Effect)
Government Effectiveness	-1.543*	0.414***	0.419***
	(-2.07)	(6.32)	(6.41)
Regulation Quality	3.043***	0.399***	0.398***
	(5.03)	(5.15)	(5.17)
Control of Corruption	-3.094***	-0.153**	-0.149**
	(-5.19)	(-2.84)	(-2.79)
Transparency	-0.848*	0.0598	0.0607
	(-2.61)	(1.54)	(1.57)
Military Expenditure	0.639	0.0596	0.0604
	(1.82)	(0.80)	(0.81)
_cons	15.49***	4.992***	4.910***
	(7.84)	(6.84)	(13.78)
No of observation	118	118	118
No. of group	15	15	15
R^2	0.4037	0.4629	0.4553
Post Estimation Test			
F Test (Wald Test)		0.0000	0.0000
LM Test	0.0000		
Hausman Test		0.3051	

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2: Faradh Dimension: Developing Countries

	(OLS)	(Random Effect)	(Fixed Effect)
Voice & Accountability	1.282	0.619***	0.617***
	(1.36)	(3.73)	(3.68)
Equality of Participation	0.720	0.395**	0.394**
	(0.57)	(3.00)	(2.97)
_cons	-0.127	3.929***	3.817***
	(-0.02)	(3.73)	(4.79)
No of observation	135	135	135
No. of group	15	15	15
R^2	0.0173	0.0172	0.0172

eISSN 2600-8564

Post Estimation Test			
F Test (Wald Test)		0.0000	0.0000
LM Test	0.0000		
Hausman Test		0.9100	

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3: Al Adl Wal Ihsan Dimension: Developing Countries

	(OLS)	**(Random Effect)**	**(Fixed Effect)**
Rule of law	7.150^{***}	-0.926^{****}	-1.023^{*}
	(5.18)	(-1.85)	(-2.05)
Right to free conduct of life	2.035^{**}	0.114^{****}	0.113
	(2.78)	(1.66)	(1.65)
Freedom to associate	-2.169^{**}	0.195^{*}	0.201^{*}
	(-2.73)	(2.19)	(2.27)
_cons	-22.31^{**}	10.69^{***}	10.94^{***}
	(-2.71)	(4.93)	(5.33)
No of observation	124	124	124
No. of group	15	15	15
R^2	0.2662	0.1606	0.1628
Post Estimation Test			
F Test (Wald Test)		0.0207	0.0162
LM Test	0.0000		
Hausman Test		0.1705	

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, $^{****}p < 0.1000$

Table 4: Shura Dimension: Developing Countries

4.2 Islamic Prosperity Index Development

Once the significant indicators are anticipated, we replicate Mandira (2015) financial inclusion index development method, in constructing the Islamic Prosperity Index (IPI) where consist of three main dimension index known as faradh index, shura index and al adl' wal ihsan index.

Figure 1 presents the IPI values computed for various developing countries for the year 2005 until 2014. In contrast with Mandira (2015) , the numbers of countries for which the IPI values are computed are similar in both analysis (time series and cross countries), as the data is available on the component dimensions that we are consider here in computing the IPI.

As evidenced from Figure 1, the increasing pattern of the IPI for developing countries indicate that the effort shared prosperity is promoted. The sign is correct for developing countries as reported by World Bank (2013) that the prosperity sharing in developing countries is in increasing pattern. This evidences the countries' effort in promoting an inclusive economy in order to improve the standard of living of poor.

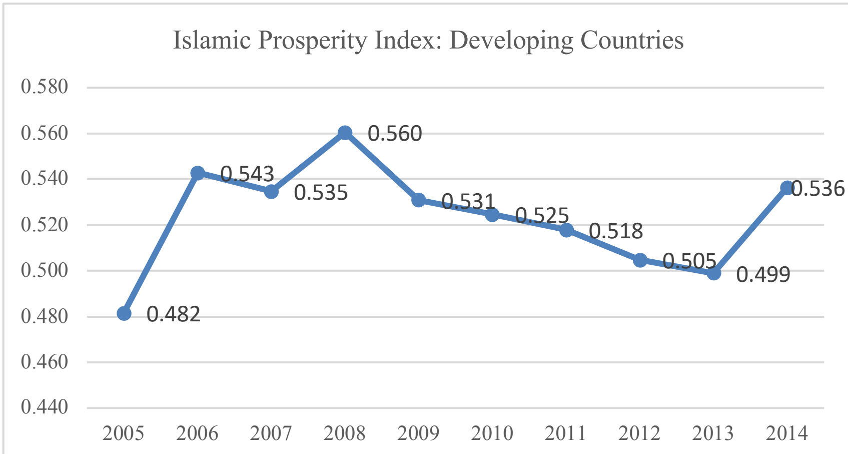


Figure 1: Islamic Prosperity Index (IPI) for Developing Countries

Figure 2 shows the IPI ranking for the developing countries for average of 10 years (2005 to 2014). Among the 15 countries, level of shared prosperity as measured by the IPI, varied from 0.344 for Ukraine to 0.604 for Montenegro. Among all of the countries, Turkey is only muslim country included in the analysis and ranked at the top five among the sample of countries at 0.572.

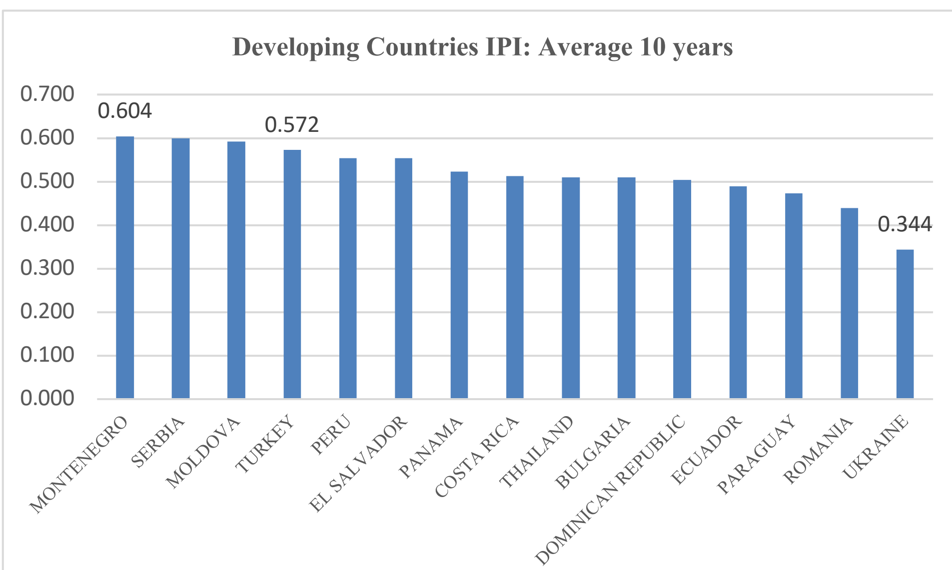


Figure 2 : Islamic Prosperity Index for Developing Countries: Average 10 years

In this brief discussion of the results, we conclude that the ranking obviously conveys a moderate level of prosperity sharing among developing countries as no countries achieve more than 70 percent of the ranking. Nevertheless the IPI adequately shows that, by practising a good governance based on the Islamic perspective, the countries is in efforts in cultivating an inclusive economy for the betterment of whole society.

5. Conclusıon

The findings of this study should provide evidence in explaining the most significant governance pillar indicators from the Islamic perspective that provides a significant impact towards increasing the prosperity sharing of a country. İt is therefore enable the developing countries to also focus on human development that will continue helps in poverty eradication and on raising the material standard of living.

This paper is designed by the researchers to conduct research in the concept and approach from Islamic perspectives of governance in mitigating poverty and promoting shared prosperity. Although this is principally aimed at academicians, it is very much relevant for policymakers, as policy targets for inclusive economy are increasingly being formulated at national and international levels. Policy makers and economists must understand this holistic approach to enable them to formulate economic policy and programs that comply with the requirements of Islam. Analysis is only useful once its inferences are adopted by the governments and placed at the heart of credible growth strategies. It is believed that there is a great deal of room for improvement by the governments in strengthening the effort to promote an inclusive economic growth.

References

Ali A. D (2015). Principles of Good Governance in Islam. [Online] Available from: https://www.linkedin.com/pulse/principles-good-governance-islam-ali-ahmad-darwish

Ahmad, N., Bhatti, K. A., & Arshad, M. U. (2013). Economic Growth and Human Development in Islam. *Al-Qalam Journal*

Al-Jayyousi, O. R. (2016). Islam and sustainable development: New worldviews. Routledge

Chen, S. and Ravallion, M. (2013), More Relatively-Poor People in a Less Absolutely-Poor World. *Review of Income and Wealth*, 59: 1–28.

Dollar, D., Kleineberg, T., Kraay, A. (2014). Growth, inequality, and social welfare: cross-country evidence. *Policy Research working paper*. No. WPS 6842

Hasan, Z. (2006). Sustainable development from an Islamic perspective: Meaning, implications, and policy concerns. *Islamic Economics*, 19(1).

Milanovic, B., & Lakner, C. (2013). Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession. *Policy Research Working Paper*, 6719.

Nazrul Islam, M., Almazroui, M., Dambul, R., Jones, P. D. and Alamoudi, A. O. (2015), Long-term changes in seasonal temperature extremes over Saudi Arabia during 1981–2010. *Int. J. Climatol*., 35: 1579–1592

Nouh, M. (2011). Sustainable Development in a Muslim Context. *Faith Values and Education for Sustainable Development*, 39.

Rauniyar, G., & Kanbur, R. (2010). Inclusive development: Two papers on conceptualization, application, and the ADB perspective. Manila: Asian Development Bank. SAMPLE

Ravallion, M. (2012). "Why Don't We See Poverty Convergence?." *American Economic Review*, 102(1):504-23

Rijsberman, F. R. (2006). Water scarcity: fact or fiction?*. Agricultural water management,* 80(1), 5-22.

Sayed M. A. Q (2004). Shariah and Good Governance. Retrieved from iecoc.org/wp-content/uploads/2014/02/Shariah-and-Good-Governance.pdf

The World Bank. (2013). The World Bank Group goals: end extreme poverty and promote shared prosperity, 1–35.

Sarma, M. (2015). Measuring financial inclusion. *Economics Bulletin*, 35(1), 604-611.

United Nations. Department of Economic, & United Nations. Department of Public Information. (2009). Millennium Development Goals Report 2009 (Includes the 2009 Progress Chart). United Nations Publications.

World Bank. (2014). A Measured Approach to Ending Poverty and Boosting Shared Prosperity. Retrieved from *https://openknowledge.worldbank.org/bitstream/handle/10986/20384/9781464803611.pdf*

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Macroeconomic Variables and Stock Market Interactions: Indonesia Evidence

Vidiyanna Rizal Putri[1], Nelmida[2] and Husnizam Hosin[3]

**[1]Lecturer, Department of Accounting,
Indonesia Banking School, Jakarta, Indonesia**
vidiputri@ibs.ac.id

**[2]Lecturer, Graduate School of Management,
Indonesia Banking School, Jakarta, Indonesia**
Nelmida@ibs.ac.id

**[3]Lecturer, Faculty of Business Management,
Universiti Teknologi MARA Johor, Malaysia**
husni455@johor.uitm.edu.my

Abstract

The existence of semi strong-form pricing efficiency on the LQ 45 Index in the Indonesia Stock Exchanges from 2004 to 2014 for using monthly closing prices was investigated. This study provides evidence on the Indonesia Stock Exchanges (IDX) using semi strong-form efficiency test. This paper employs the integration test, which is widely used to distinguish the impact of macroeconomic factors (The consumer price index, exchange rate, gross domestic product, and interest rate) to market returns (Lq45 Index). The findings indicate that in Indonesia Stock Exchanges show mixed evidence of Semi strong form pricing efficiency characteristics for monthly return series. The results implied that the new information have impacted on the Indonesia Stock Exchanges by making exchanges becoming more price efficient.

Keywords: Semi Strong - Form EMH, the Indonesia Stock Exchanges, the Integration Test and Macroeconomic Variables

1. Introduction

The Aggregate performance of capital market can be easily seen by its index. Many factors influence the price movement of the stock Security market indices represented by security market prices. Factors influencing stock price might appear internally which can be controlled by the company. Otherwise, it might come from external sources, like economic stability. Economic stability in a country could be measured by macroeconomics variables. Inflation, exchange rate, Gross Domestic Product (GDP) and interest rate are some macroeconomics variable that shows economic condition in Indonesia. Stock price index is a way of measuring the performance of a market over time, and the index used in this study is LQ45 Index. The relation between stock market returns and fundamental economic activities in the United States is well documented (Fama, 1970, 1990, 1991).

Global crisis in 2008 which started in the United States also affected Indonesia's economic condition. Depreciating value of Indonesian currency to USD currency and lower demand of Indonesian export are some of the impacts of the crisis in 2008. Macroeconomic variables are factors that could not be controlled by the companies which might affect the volatility of the stock price.

The effect of the Macroeconomic variable on stock market can be investigated by using the efficient market hypothesis test as the semi strong form efficient market hypothesis (EMH). There is enough evidence concerning the integration of the semi strong- form efficient market hypothesis (EMH) with respect to stock markets. The semi strong-form of the EMH postulates that successive one-period stock returns are cointegrated. This paper attempts to investigate the impact of macroeconomic variables on the LQ 45 index by using the semi strong-form efficiency test.

This paper used the counteraction test. The rest of the paper is organized as follows; Section 1 describes introduction and section 2 overviews the efficiency evidence on the Indonesian market while section 3 describes the data collection procedure and methodology. Section 4 discusses the findings and section 5 concludes the paper.

2. Review of Literature

Relatively few evidences were available evaluating the efficiency of the Jakarta Stock Exchange. Suad (1987) and Rusiti (1990) found that the market is fairly efficient in the weak sense. However, Suad (1990), Balsius (1993) and Agus (1995) found that the sufficient conditions for weak form of efficiency were not satisfied. Further, Suad (1990) also investigates the semi strong form efficiency using earning, additional issue, and new issues announcements. The general findings indicate that the market is not efficient in semi-strong form. Further studies by Rusiti (1990) and Agus (1995) substantiated the findings of Fuad (1990). Endang (2000) found that the share price response to bond announcements procedure an average excess return significantly different from zero while Endang (2000) found that the average abnormal return is significantly positive at pre-announcement date of merger and acquisitions. Rahayu (2003), Adams et al (2004), Adisetiawan. R. (2011) investigated on the macroeconic varibles for market returns using cointegration test. The findings indicate that macroeconomic variables have impact to market return. Most Indonesian researchers used multiple regression model. Therefore, so many oversea researcher used countegartion model has been done, for example; Maysami, R. C., Howe, L. C., & Hamzah, M. A. (2004).

Gan, Lee, Yon, and Zhang (2006) conducted a research to analyze the effect of seven macroeconomics variables (inflation rate, long term interest rate, short term interest rate, the real trade weighted exchange rate index, real gross domestic product, money supply, and domestic retail oil prices) to the New Zealand Stock Index (NZSE40). Ahmad, Rehman, Raoof (2010) observed the impact of interest rate and exchange rate to the Stock Return in Pakistan. Alrub, A. A., Tursoy, T., & Rjoub, H. (2016) investigates

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Relationship between Macroeconomic Variables and Stock Prices during the Restructuring Period in Turkish Market, Kesik, A., Canakci, M., and Tunali, H. (2016) employ Impact of Non-Residents'holdings of Equities on Bist (Istanbul Stock Exchange) 100 INDEX.

3. Methodology and Data

Data was collected from the Indonesian Stock Exchange (IDX). This study employed the cointegration test to test the semi strong-form of the EMH is proposed by Granger (1981).

3.1 The Data set

All data originates from the Indonesia Stock Exchange; the data sets used in this paper were consistent with monthly closing prices of the LQ 45 index from 2004 to 2014. Which were extracted from the computer service and IDX monthly Statistics.

3.2. Methodology

3.2.1 Test of Stationary

Any time series data can be thought of as being generated by either a stochastic or random process. A stochastic process is said to be stationary if its mean and variance are constant over time. However, according to Engle and Granger (1987), most of the financial market time series are non-stationary in nature. The regression of these financial series may give spurious results with very high R2 although there is no meaningful relationship between the two. The unit root test examines whether each financial series is stationary or non-stationary. The existence of unit root in a series indicates that the series is non-stationary. A time series is integrated, denoted I(d), if the series can achieve stationary results only after differencing d time. Engle and Granger (1987) noted that an I(0) series is thus, by definition, stationary; an I(1) series contain unit root and is non- stationary.

3.2.2 Unit roots Analyses

Dickey and Fuller (1979, 1981) have shown that Q- statistics are less powerful than unit roots analysis developed by Dickey and Fuller (1981), and further developed by Phillip and Perron (1988) and others in testing for unit roots. The unit roots hypothesis is that, if the regressor in tests of market efficiency possesses a unit root, then the time series data is said to have a random walk. Consider the three time series models of the random walk:

$$Y_T = bY_{t-1} + e_t \qquad (1)$$

$$Y_T = a_t + bY_{t-1} + e_t \qquad (2)$$

$$Y_T = a_t + bY_{t-1} + c(t-1-T/2) + e_t \qquad (3)$$

The first model is the random walk with zero drift, while the second model incorporates a non-zero drift. The last model includes a time trend factor. This study will base the analysis on the model that describes the LQ 45 index series. A test of significance would use the Dickey- Fuller critical value to evaluate whether the price changes as rates of return fluctuate randomly around the value of one.

3.2.3 The Cointegration and Error Correction Model (ECM)

In this study the Cointegration Model will be used to examine semi - strong efficiency in the IDX for long run. This model was first put forward by Granger (1981) and pioneered by Engle and Granger (1987). Cointegration analysis allows nonstationary data to be used so that spurious results are avoided, this is once of advantage cointegration test not likes multiple regression model the data must be stationer and the result can be spurious result. It also provides applied econometricians an effective formal framework for testing and estimating long-run models from actual time-series data. Using Johansen's vector error- correction model, this study examines the dynamic relations between macroeconomic variables on the Indonesian stock market. Although Engle and Granger's (1987) two-step error-correction model may also be used in multivariate context, the VECM yields more efficient estimators of cointegration vectors. This is because the VECM is full of information on the maximum likelihood estimation model, which allows for testing of cointegration in a whole system of equations in one step and without requiring a specific variable to be normalized. This allows us to avoid carrying over the errors from the first step into the second, as would be the case if Engle-Granger's methodology is used. It also has the advantage of not requiring a priori assumptions of endogenity or exogenity of the variables.

Johansen's (1991) VECM, which employs the full information maximum likelihood method, is implemented in the following steps:

1. Test whether all variables are integrated of order one by applying a unit root test.

2. Find the truncated lag (*k*) such that the residuals from each equation of the VECM are uncorrelated.

3. Regress ΔY_t against the lagged differences of ΔY_t and Y_{t-1}, and estimate the eigenvectors (cointegration vectors) from the canonical correlations of the set of residuals from these regression equations.

4. Determine the order of cointegration. The order of cointegration (*r*) indicates the dimension of the cointegrating space and is determined by constructing the following test statistics:

$$\lambda = -T \sum_{i=r+t}^{p} \ln(1 - \hat{\lambda}_i) \qquad (4)$$

$$\lambda_{\max} = -T \ln(\hat{\lambda}_{r+t}) \qquad (5)$$

where λ's are the estimated eigenvalues. These statistics do not represent regular chi-square distributions, but as Johansen shows, they weakly converge to a function of (p-r) dimensional Brownian motion. The choice of the number of maximum cointegrating relationship will be based on the λ_{trace} tests. The $\lambda_{\max}$ test is used to test specific alternative hypothesis.

Having determined the order of cointegration, the relevant cointegrating vector and speed of adjustment coefficient is selected and analyzed assuming cointegrating vector does not have a full rank and are not multiple cointegrating vectors. The first eigenvector based on the largest eigenvalue, which is probably the most useful will be chosen. This study considers the natural logarithm of the share price index LQ45 index.

Test on the parameters of cointegration vector may be performed using the likelihood ratio test. Johansen (1991) has also developed test of hypothesis regarding individual elements of α and β**'.** The selection of lag order of the unrestricted VAR is a perquisite for the application of the Johansen procedure in this study, the number of lags in VAR may be determined by Akaike Information criterion. In addition residual from the selected unrestricted VAR are tested for autocorrelation to verify the appropriateness of the lag order. As unit root tests, lags are not omitted if their exclusion introduces serial correlation.

4. The Findings

4.1 Result of Stationary Test

This section reports the unit root analyses using Augmented Dickey Fuller (ADF) and Philip-Peron (PP) test and discusses the findings of the relation between macroeconomics variables on the market returns series for long run and short run using cointegration and error correction model.

Table 1: The Results of ADF and Philips Peron Test on The LQ45 Index and Macroeconomic Variables

	Level		First Difference	
	ADF- Test statistic	P-P Test statistic	ADF- Test statistic	P-P Test statistic
R_1	-5.5015***	-5.3440***		
X_1	0.4594	0.8868	-4.5471***	-4.2498***
X_2	0.0911	-1.6189	-7.7976***	-11.6153***
X_3	-0.1175	-0.2260	-9.9463***	-32.5648***

The t-statistics is based on Augmented Dickey-Fuller (ADF) and Philips-Peron (PP) regression with allowance for level and intercept respectively. *** implies the significance at 1% level.

R1 is the LQ45 index, R2, X1 is the consumer price index (CPI) or inflation rate, X2 is exchange rate, X3 GDP and X4 is interest rate.

Unit root test is a prerequisite of cointegration for time series data. In this study, Augmented Dickey Fuller (ADF) and Philip-Peron (PP) tests are employed. The results of ADF and PP tests are shown in Table 1. The results indicate that the null hypotheses of unit root are acceptable and significant at the one percent level for the market returns (natural log return). However, the null hypotheses of unit root are acceptable at the one percent levels for all of the macroeconomics variables, except for the interest rate. Prior to testing for the number of significant cointegrating vector, the likelihood ratio (LR) tests are performed to determine the lag length of the vector autoregressive system.

4.2 Cointegration and Error Correction Model (ECM) Results

The λ_{trace} and λ_{Max} statistics to test for the deterministic components are shown in Table 2. The Table 2 presents that there are trends in levels of data and intercept in the cointegrating for the LQ45 index with the macroeconomic variables which comprises the Consumer Price Index (CPI), Exchange Rates (ER), Gross Domestic Product (GDP) and Interest Rates (IR).

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Table 2 shows the results and critical values (CV) for *k* equal 2. In this case of the λ_{trace} test indicates that there is no more than one cointegrating relation. While the λ_{Max} test rejects *r* equal zero for alternative that *r* equal one at the five percent significance level. The result means there is one cointegrating vector, for example, *r* equal one.

Table 2: The results of critical values the λ_{trace} and λ_{Max} Test on the LQ45 Index

Ho	λ_{trace}	CV 5%	CV 1%	λ_{Max}	CV 5%	CV 1%
r=0	81.97***	68.52	76.07	33.96**	33.46	38.77
r≤1	48.01**	47.21	54.46	26.22	27.07	32.24
r≤2	21.78	29.68	35.65	15.67	20.97	25.52
r≤3	6.11	15.41	20.04	5.94	14.07	18.63
r≤4	0.17	3.76	6.65	0.17	3.76	6.65

*** denotes significance at 1% level and ** at the 5% level.

Normalizing with respect to the coefficient for LQ45, cointegrating vector for this case is given by $\square_1$. This yields the following cointegrating relationship:

$$R_1 = -2.72CPI^{***} + 0.17ER + 1.50GDP^{***} - 0.29IR^{***} + 6.94$$

(6) [-4.1562] [0.9444] [4.6220] [- 5.2467]

In equation (6) shows relationship macroeconomic variables and the LQ45 index for long run. The consumer price index (CPI) and the LQ45 index (R1) are negatively related and significant at the one percent level. This finding is consistent for the United States (Fama & Shchewert, 1977), for Japan (Mukherjee & Naka, 1995), for Indonesia Stock exchanges (Harianto and sudomo, 2001) and Adams et al (2004). Then, the effect of the exchange rate (ER) on the LQ45 index (R1) is positively related and insignificant at the one percent level, consistent with Japanese stock market by Mukherjee and Naka (1995), Ibrahim (2000), Utami dan Rahayu (2003), Karamustafa O, et al (2004). Finally, interest rate (IR) and the LQ45 index (R1) are negative related and significant at the one percent level. The negative effect of interest rate on stock prices also holds for the U.S Stock Market for Indonesia Stock exchanges Sudjono (2005).

The effects of macroeconomic variables on the LQ45 index (R1) for the short run are shown in Equation 7.

$$dR_1 = -0.0004 - 0.55\,ECT^{***} - 0.20\,dR_1(-1) - 0.29\,dR_1(-2)^{**} - 2.34\,dCPI(-1) +$$

[-0.03] [-3.92] [-1.55] [-2.36] [-1.30]

0.92 dCPI (-2) -0.33 dER (-1)* -0.29 dER (-2) + 0.48 dGDP (-1) *** +
[0.52] [-1.78] [-1.57] [2.44]

0.21 dGDP (-2) -0.38 dIR (-1) ** + 0.33 dIR (-2) * (7)
[1.06] [-2.20] [1.72]

Equation 7 shows lag 2 of LQ45 index and the LQ45 index (R1) is negatively related and significant at the five percent level. Then, the effect of lag 1 of the exchange rate (ER) on the LQ45 index (R1) is negatively related and significant at the ten percent level. Next, the effect of lag 1 of gross domestic product (GDP) and the LQ45 index (R1) are positively related and significant at the one percent level. Finally, lag 1 of interest rate (IR) and the LQ45 index (R1) are negative related and significant at the five percent level and lag 2 of interest rate and the LQ45 index (R1) are positively related and significant at the ten percent level. These observations seem indicate that the stock market is semi-strong form efficiency for short run.

Results of the finding shows there is cointegration between the macroeconomic variables on the LQ45 index in the long run and short run. In the long run, there is cointegration between the consumer price index, the GDP and interest rate on the market index (LQ 45 index) respectively.

In the short run, the finding also shows that there is cointegration between the macroeconomic variables on the LQ45 index. The lag 1 of exchange rate and the lag 1 of interest rate on LQ45 index are negatively related and significant. The lag 1 of gross domestic product and the lag 2 of interest rate on LQ45 index are positively related and significant. Based on analysis above, conclude of this study seem to indicate that the stock market is efficient in semi-strong form efficiency.

Interpretation of cointegration in terms of market efficiency depends on how “efficiency” is defined. By defining this term as the absence of predictability, Granger (1986), among others argues that asset prices cannot be cointegrated in efficient markets. Dwyer and Wallace (1992) however, demonstrate that cointegration does not necessarily violate the notion of information efficiency as defined by Fama (1991). By defining market efficiency as lacking of arbitrage opportunities, they show that presence of cointegration is consistent with the absence of abnormal returns.

In explanation of Dwyer and Wallace’s (1992) economic interpretation of cointegration, this study may be consistent with efficiency of the Indonesian Stock Market. Fama (1991) points out that in the presence of time-varying expected returns, predictability in stock price change maybe consistent with stock market efficiency. Poterba and Summers (1988) report evidence of time- varying expected returns in the TSE Index. If the time variation in macroeconomic condition and expected returns is predictable, the macroeconomic variables may be used to forecast future stock returns. For example, predictable business cycle variations induce predictable time-varying expected returns, which are reflected, with noise, in realized asset returns. However, such predictability may not necessarily provide arbitrage profit opportunities. Further research in the future should extend the research period to cover longer research periods.

5. Conclusions

The main objective of this study is to investigate the behavior of stock prices in the Indonesian stock market especially in areas concerning the LQ45 index, with respect to semi-strong form Efficient Market Hypothesis (EMH). The study covers a ten year period, 2004 – 2014.

The semi-strong of the EMH is then investigated using publicly available information on the Indonesian stock market namely using macroeconomic variables. Using Johansen's methodology for multivariate cointegration analysis and monthly-time series data, this study has identified several macroeconomic factors that have long-run equilibrium effect on LQ45 Index. Cointegrations results which are macroeconomic variables are consumer price index (CPI), exchange rate (ER), gross domestic product (GDP), and interest rate (IR). and LQ45 index.

The findings of cointegration indicate that there is a relationship among the macroeconomic variables on the LQ45 index for the long-run the consumer price index (CPI) and the LQ45 index (R_1) are negatively related and significant at the one percent level. Then, the effect of the exchange rate (ER) on the LQ45 index (R_1) is positively related and insignificant at the one percent level. Finally, interest rate (IR) and the LQ45 index (R_1) are negative related and significant at the one percent level.

Based on tests of linear restrictions for short-run it shows that there is cointegrating relationship between the macroeconomic variables on LQ45 index. Using VECM, the result for short run n the lag 2 of LQ45 index and the LQ45 index (R_1) is negatively related and significant at the five percent level. Then, the effect of lag 1 of the exchange rate (ER) on the LQ45 index is negatively related and significant at the ten percent level. Next, the effect of lag 1 of gross domestic product (GDP) and the LQ45 index are positively related and significant at the one percent level. Finally, lag 1 of interest rate and the LQ45 index are negative related and significant at the five percent level and lag 2 of interest rate and the LQ45 index are positively related and significant at the ten percent level. These finding seem indicate that the stock market is semi-strong form efficiency for short run.

6. Implication of Study

The findings of this study have a number of implications. For the researchers, the study has shown that given the information that promotes transparency and openness, the behavior of the Indonesian stock market. An efficient market would also carry very negative implications for many investment strategies and actions that are taken for granted. In an efficient market, equity research and valuation would be costly which provide no benefits. The odds of finding the undervalued stock are random. At best, the benefits from information collection and equity research would cover the cost of doing research.

For information intermediaries, the degree of information efficiency has several implications for intermediaries. If the market is efficient with respect to publicly available information, an information intermediary would concentrate on gathering information that is not publicly available. The intermediary will seek out resources that are not fully reflected in prices. Hence, the intermediary will adopt different strategies depending on his perceptions of market efficiency. To the management or the policy maker, managers competing for investors' funds have incentives to provide information to investors and intermediaries, among others. Market efficiency has a potential implication for managers. In particular, managers tend to ignore the EMH, and they seem to care more about which accounting method is used to report a transaction.

In general, the market reflects information relevant for stock pricing. Current prices are best estimates of the true value of stocks. More deregulation and more disclosures may make the market prices reflect real asset of companies listed on the Indonesian stock market.

For the researcher, this study can be extended over longer period and the coverage made more comprehensive. In general, the average behavior of the Indonesian stock market as a developing stock market reflects in some respect the general behavior of developed stock markets used in our analysis.

References

Adams G., Grant McQueen dan Robert Wood., (2004), The Effects of Inflation News on High Frequency Stocks Returns, The Journal of Business. Jul 2004. Hal. 547-574.

Adisetiawan R. (2011). Keseimbangan Jangka Panjang antara Variabel Makro Ekonomi dengan Indeks Harga Saham, Trikonomika 10 (2), December, 72– 84.

Agus, Harjito. (1995). Pengujian efisiensi pasar modal periode 1992-199. Unpublished master's thesis, UGM, Yogyakarta.

Ahmet Kesik, Mehmet Canakci, andHalil Tunali (2016), Analyzing Impact Of Non-Residents' Holdings Of Equities On Bist (Istanbul Stock Exchange) 100 Index, *Journal of Economics, Finance and Accounting – JEFA (Vol.3(2)*

Ahmad, Rehman and Raoof (2010). Effects of Interest Rate and Exchange Rate on Volatility of Market Index at Dhaka Stock Exchange. Journal of Business and Technology. Vol. 7, issues 2.

Ahmad Abu Alrub, Turgut Tursoy,and Husam Rjoub (2016)Exploring the Long- run and Short- Relationship between Macroeconomic Variables and Stock Prices during the Restructuringrun Period: Does it Matter in Turkish Market?, Journal of Financial Studies & Researh.

Balsius, M. (1993). Analisis efisiensi pasar modal Indonesia sebelum dan sesudah swastanisasi. Unpublished Master Thesis, UGM, Yogyakarta, Indonesia.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Dickey and Fuller. (1981). Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Root. Econometrica. Vol. 49, Issue. 4, 1057-1072.

Dickey, D. A. (1976). Estimation and hypothesis testing in nonstationary time series, PhD Thesis, Iowa State University.

Dwyer and Wallace. (1992). A note on cointegration and international capital market efficiency. Journal of International Money and Finance, vol. 15, Issue 4, 657-660.

Endang, S. (2000). Analisis reaksi harga saham terhadap pengumuman obligasi di Bursa Efek Jakarta, Unpblished master's thesis, Universitas Gajah Mada Yogyakarta, Indonesia.

Engle and Granger. (1987). Co-Integration and Error Correction: Representation, Estimation and Testing. Econometrica, Vol. 55, issue 2, 251-276.

Fama and G. Schwert. (1977). Asset returns and inflation. Journal of Financial Economics, vol.5, issue 2, 115-146.

Fama, E. F. (1965). The behavior of stock prices. Journal of Business, 38, 34-105.

NA (1970). Efficient capital markets: A review of theory and empirical work. the Journal of Finance, 25(2): 383-417.

NA (1991). Efficient capital markets II. Journal of Finance, 46, 1575- 1617.

Gan et. al (2006). The stock Market and Macroeconomic Variables in New Zealand and Policy Implications, Journal of International and Global Economics Studies, vol. 6, issue 2, 1-12.

Granger. (1981). Some properties of time series data and their use in econometric model specification. Journal of Econometrics, Vol. 16, issue 1, 121-130.

Granger. (1986). Development in the study of cointegrated economic variables. Oxford Bulletin of Economics and Statictics, vol. 48, issue 3, 213-228

Harianto F dan Sudomo S, (2001), Perangkat dan Teknik Anailis Investasi di Pasar Modal Indonesia, PT Bursa Efek Jakarta, Jakarta.

Ibrahim, Mansor H., (2000), Cointegration and Granger Causality Test of Interaction in Malaysia, Asean Economics Bulletin, 17,36-47

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Johansen. (1991). Estimation and Hypothesis Testing of Cointegration Vectors in Gaussian Vector Autogressive Models. Econometrica, vol. 59, Issue. 6, 1551-1580.

Karamustafa O dan Kucukkale Y. (2004). Long Run Relationship Between Stock Market Return and Macroeconomic Performance : Evidence from Turkey, online Journal http:// www.Google.com.

Maysami, R. C., Howe, L. C., & Hamzah, M. A. (2004). Relationship between macroeconomic variables and stock market indices: Cointegration evidence from stock exchange of Singapore's All-S sector indices. *Jurnal Pengurusan*, *24*(1), 47-77.

Mukherjee and Naka. (1995). Dynamic Relations between Macroeconomics Variables and the Japanese Stock Market: AN Application of a Vector Error Correction Model. Journal of Financial Research, vol. 18, issue 2, 223-237.

Phillips, P. C. B., & Perron, P. (1988). Testing for unit root in time series regressions. Biometria, 75, 335-346.

Poterba, James M. and Lawrence H. Summers (1988), 'Mean Reversion of Stock Prices', Journal of Financial Economics, 22(1): 27–59.

Rahayu. (2003). The Effect of Macroeconomics Variables on Banking Stock Price Index in Indonesia Stock Exchange. RJOAS. Vol. 1, issue 73.

Rusiti (1990). Analisis perilaku harga saham pasar modal Indonesia, periode 1986-1989 dengan pendekatan hipotesis pasar modal efficien, unpublished master's thesis, UGM, Yogyakarta, Indonesia.

Suad, H. (1987). The Indonesian stock market efficiency: A case of thin market. Unpublished master's thesis, Department of Accounting and Finance, University of Birmingham, England.

Suad, H. (1990). The Indonesian stocks market its contribution to financial development and the application of the efficient markets hypothesis. Unpublished PhD Thesis, Faculty of Commerce and Social Science University of Birmingham, England.

Sudjono. (2005). Analisis Keseimbangan dan Hubungan Simultan antara Variabel Ekonomi Makro terhadap Indeks Harga Saham di Bursa Efek Jakarta dengan Menggunakan Metode VAR (Vector Autoregressive), dan ECM (error Correction Model*). Jurnal Ekonomi Teleskop*. STIE YAI, 4(7) 101-116

Utami. M. dan Rahayu, M., (2003), Peranan Profitabilitas, Suku bunga, Inflasi dan Nilai Tukar Dalam Mempengaruhi Pasar Modal Indonesia Selama Krisis Ekonomi*, Jurnal Ekonomi Manajemen, 5(*2)

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Financial Development and Poverty Alleviation in Muslim Developing Countries

***Maizura Md Isa [1], Nor Hazila Ismail [2] and Mohamed Eskandar Shah Mohd Rasid [3]**

**[1] Lecturer, Faculty of Business and Administration,
Universiti Teknologi MARA (UiTM) Johor
85000 Segamat, Johor, Malaysia**
maizu493@johor.uitm.edu.my

**[2] Lecturer, Faculty of Business and Administration,
Universiti Teknologi MARA (UiTM) Johor
85000 Segamat, Johor, Malaysia**
norha884@johor.uitm.edu.my

**[3] Lecturer, International Centre for Education in Islamic Finance (INCEIF),
Lorong Universiti A, 59100 Kuala Lumpur**
eskandar@inceif.org

Abstract

The positive impact of financial development on economic growth has been widely discussed, but the literature on the impact of financial development on poverty is inconclusive. Theoretical predictions advocate that financial development contributes directly to poverty reduction in three ways. Firstly, it alleviates poverty in a direct way via saving, insurance service and access to credit that can enhance the productivity of the poor. Secondly, financial development would enable the poor to access financial services, and enhance the productive assets of the poor, by improving productivity and increasing the potential to achieve sustainable gains. Lastly, the direct relationship between financial development and poverty reduction depends on the quality of financial instruments, services and institutions available to the poor. Varied explanantory discover on panel studies that suggest although financial development can foster economic growth, yet this does not could help in lighten the poorer people in Muslim developing countries.

Keywords: Financial developments, Poverty, Muslim Developing Countries.

1. Introduction

1.1 Background

Modernization and rising living standards notwithstanding, poverty[1] remains a major concern for the global economy. In 1990, almost half of the population in developing regions lived on less than $1.25 a day. This rate dropped to 22 per cent by 2010, reducing the number of people living in extreme poverty by 700 million. Yet despite this progress, the problem of poverty still exists, from the early 1990s to the late 2000s, 1.2 billion people lived in extreme poverty. There is a general consensus that addressing poverty eradication is an utmost challenge facing the world.

The multiple factors of poverty are illustrated in a series of case studies in *Voices of the Poor* by the World Bank, for instance highlighting the experiences of ill-being including material lack and want (food, housing and shelter, asset and money); hunger, pain and discomfort; exhaustion and poverty of time.Khadar, (2014)highlights that poverty is due to inadequate access to assets such as land and capital, overlooking the importance of rural areas in favour of urban areas, too little access to market, health and sanitation, and water services. The study also points out that the constant destruction of natural resource endowments and non-participation of the poor in the design of development programmes have also contributed to the poverty phenomenon. Thus, the impact not only on starvation but also limiting the access to good education, distancing the needy people from good career, leading to poor prospects for employment opportunities. Furthermore, poverty has come to be seen as the result of the deprivation of basic capabilities, which leads to reduced life expectancy, health, participation as well as the absence of real opportunities to lead a valuable and valued life (UNPD, 2000).

1.2 Financial Development and Poverty Alleviation

As discussed in many literatures, financial development effects economic growth and poverty tremendously, because growth is a powerful way to reduce poverty. However, it has been unclear wheter it also shrinks poverty. A model suggests that financial development enhances growth and reduces inequality. It can be done by (i) disproportionately relaxing credit constraints on the poor and reducing income inequality and (ii) improving the allocation of capital and increasing growth.

Theoretical predictions advocate that financial development contributes directly to poverty reduction in three ways. First, in a direct way via saving, insurance service and access to credit that can enhance the productivity of poor(Jalilian and Kirkpatrick , 2005).Secondly, financial system enables the poor to access financial services, especially credit and insurance risk, and it will enhance the productive assets of the poor, by improving productivity and increasing the potential to achieve sustainable gains (Jalilian and Kirkpatrick , 2001). Lastly, the direct relationship between financial development and

[1] World Bank (1990) defined poverty as the inability to attain a minimum standard of living. The condition where people's basic needs for food, clothing, and shelter are not being met. Poverty is a tireless problem throughout the world and has had adverse impacts on all aspects of family life.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

poverty reduction depends on financial instruments, services and institution available for poor (Holden and Prokopenko, 2001)

Additionally, financial development may also affect the poor in two ways: by boosting economic growth (and making people richer) and by changing the distribution of income. A high economic growth rate, induced by financial development contributes automatically to poverty reduction ((Levine, 1999;Rajan and Zingales, 1998).In addition, Greenwood and Jovanovic, (1989)found that financial development indeed could benefit the poor depending on the level of economic development. Meanwhile, Beck *et al*, (2004), indicates that increase in financial development in a poor country induces the income of the poorest people in that nation to grow faster than the average per capita gross domestic product (GDP).

There are also dramatic differences in poverty among countries, even among developing countries. Park & Mercado, (2015) find that poverty and inequality remains a stubborn challenge in a developing Asian countries despite the region's rapid economic expansion in previous decades , which lifted millions out of poverty. Results of within-country studies are rather mixed, where the study by Giné and Townsend (2004) in Thailand find that financial development affects different group of population differently.

Despite financial development method been used in reducing poverty, yet the problem still exists. A study by (Janvry and Sadoulet(2000), find that income growth is effective in alleviating poverty and inequality if the level of inequality is not too high and if educational levels are sufficiently higher. Nevertheless, Greenwood and Jovanovich (1990), raised a serious concern whether financial development benefits the entire population. The study argues that at the early stage of development, only the rich manage to access and benefit from the financial market development. This, in turn, increases income inequality and may not necessary lowering the poverty rates. This intricate relationship raises the question whether the financial development helps in alleviating poverty or there is no guarantee that this growth drained by financial development benefits the poor, because sometimes a high growth does not always translate into poverty reduction. Thus the relationship between financial development and poverty is not conclusive. The precise impact has not well been defining in either empirical studies or the theoretical literature. The objective of this paper is to study whether developments in the banking sector and stock markets have contributed to a reduction in poverty.

In line with the global trends, OIC countries was also experienced significant movement in poverty situation. However, poverty remain comparatively very high in OIC countries where they were home to 1/3 (33.1%) of world total poor in 2011 (SEISRIC 2015). It has been reported about 35% people still live in multidimensional poverty in OIC countries. In developing countries of OIC, absolute poverty is still a greater concern (SEISRIC 2015). In addition, Duclos and Wodon (2004) also stated that in developing countries absolute poverty is a greater concern. The situation was getting far worse for the countries that come from sub-Saharan Africa. Many literatures shown that there has been a general reduction in extreme levels of poverty in developing countries across the globe, serious problem remain. These problems motivated us to focus on Muslim developing countries

2. Literature Review

Poverty alleviation is a complex phenomenon and requires ongoing efforts by governments and international organizations. Since the United Nations Millennium Declaration and the subsequent agreement on the Millennium Development Goals (MDGs)[2], the international community has highlighted its commitment to the reduction of poverty and inequality.

Ismail Sirageldin (2000) had identified three main components or features of poverty, namely subsistence, inequality and externality. Subsistence relates to "minimum of provisions needed to maintain health and working capacity" (capabilities). Inequality is concerned with the "relative position of income groups to each other." Externality is associated with "social consequences of poverty for the rest of the society rather than in terms of the needs of the poor" of policies dealing with poverty. According to Lowen (2009), poverty can be divided into two types[3] — transitional poverty and intergenerational poverty.

From the economic perspective, poverty is classified into three categories. Absolute poverty (the income below a certain level necessary to maintain a minimum standard of living).Income inequality (how the benefits of the development are allocated among individuals in a group, among groups in a population, or among countries, and Relative poverty (instances where household income is less than the average income by a certain amount). For example, in the UK, relative poverty is defined as income 50% less than average incomes.[4]

The literature, where the focus is on the economic aspect of poverty, mainly uses four related indicators i) the headcount index; ii) the poverty gap which both can be used to measure absolute poverty (Arimah, 2004; Beck, 2013; Evidence *et al*., 2004; Guillaumont *et al*,2008; and Kpodar and Singh, 2011); iii) the Gini coefficient to measure income inequality (Kappel, 2010; Kpodar and Singh, 2011; Li and Yu, 2014); and iv) average income of the poorest quintile to measure relative poverty (Kappel, 2010; and Kpodar and Singh, 2011).

Many factors could lead to poverty, e.g. ignorance, lack of experience and laziness, but the most important reason is the concentration of capital to a few — a narrow group of people that will lead to (and has begun to show) negative repercussions to human and economic development globally. These negative consequences include deprivation, social

---

[2] MDGs provided a focal point for governments — a framework around which they could develop policies and overseas aid programmes designed to end poverty and improve the lives of poor people — as well as a rallying point for NGOs to hold them to account, they were too narrow. The sustainable development goals (SDGs) are a new, universal set of goals, targets and indicators that UN member states will be expected to use to frame their agendas and political policies over the next 15 years. The SDGs follow and expand on the millennium development goals (MDGs), which were agreed by governments in 2001 and are due to expire at the end of 2015.
[3] Transitional poverty. It depends on the events or circumstances that have caused poverty for instance medical treatment, affordable housing, and income supports to assist individuals and households. Intergenerational poverty requires a multi-dimensional approach, including a range of early childhood development interventions related to health care, education, nutrition, recreation, parenting, mentoring and others.
[4] http://www.economicshelp.org

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

unrest, lower investment, and ultimately lower growth, which point to the need for appropriate national and international policies to fight inequality and poverty (Kappel, 2010).

In recent times, the scientific community has renewed interest in exploring the sources and the socio-economic consequences of poverty and inequality. Both academicians and policymakers believe that unequal access to resources is the core contributor towards poverty. One part of literature accordingly stresses that financial market imperfections prevent the poor from investing in productive assets. This market failures may lead to an unequal distribution of credit in favour of the rich people (Jalilian and Kirkpatrick, 2005). As a consequence, inherent disadvantages are transmitted across generations, resulting in persistent inequality and poverty (Kappel, 2010).

In accounting for the changes in the landscape of poverty, its alleviation can be divided into two parts: faster economic growth and improvements in the distribution of income. Besley and Burgess (2003) calculated that: (1) developing countries need a GDP per capita growth rate of 3.8% to cut poverty in half by 2015, which is twice the growth rate of recent decades, and (2) a one standard deviation decline in the Gini coefficient of inequality would cut poverty by about half, in regions with highly skewed income distributions such as Latin America and Africa.

The relationship between financial development and economic growth has been examined extensively in the literature. Theoretical models stress that financial development promotes economic growth via mobilising savings and diversifying risks (King and Levine, 1993). Additionally, Greenwood and Jovanovic (1989) find that the level of economic development induced by financial development could benefit the poor, while Galor and Zeira (1993) argues that financial development would reduce inequality and this claim was supported by Rajan and Zingales (1998), while Levine (1999) explores the relationship between financial development and economic growth where he found a significantly positive relationship.

In order to examine the impact of financial development on poverty and income inequality, some studies have used banking sector development in terms of the contribution of private credit to GDP growth, (Evidence et al., 2004; Kappel, 2010; Kpodar and Singh, 2011) . After controlling for endogeneity, it showed a robust positive relationship between private credit expansion and the growth rate of GDP per capita. Honohan (2003) found that financial development (measured by ratio of private credit to GDP) is negatively connected with headcount poverty, with a coefficient suggesting that a 10 percentage point change in the ratio of private credit to GDP should (even at the same mean income level) reduce poverty ratios by 2.5 to 3 percentage points. Meanwhile, Jalilian and Kirkpatrick (2005), use the ratio of bank assets to GDP to measure financial intermediation in a sample of advanced and developing countries and show a strong positive impact on the income of the poor. Additionally, Guillaumont *et al*, (2008) suggested that the poor benefit primarily from the ability of the banking system to facilitate transactions and provide savings opportunities. They measure using the ratio of M3 to GDP. Indeed, as the financial system becomes healthier and more competitive, it may have more capacity and desire to bear the high costs of small credits (Rajan and Zingales, 2003).

Another aspect of financial development is capital market development relating to stock value traded, and stock market turnover ratio to GDP. Kappel (2010) and Kpodar and

Singh (2011) find that through a developed stock market, inequality and poverty can be reduced. However, compared to the banking sector, the stock market has a relatively lower, although still significant, effect in reducing poverty.

Moreover, financial development is often considered as the critical elements, as it allows the economic agent to make longer-term consumption and investment decisions and cope with unexpected short-term shocks. Understanding the link between financial development and poverty at the country level will help policymakers design and implement programmes that will broaden access to financial services, leading to a reduction in poverty incidence. In the next section, we look at the thereotical framework and methodology of the analysis.

3. Methodology

This section describes the proposed variables and the methodology to be used for establishing the relationship between financial development and poverty alleviation. This study will focus on the OIC developing countries that consist of 48 countries from 2001 to 2014.

In order to measure the poverty, we used poverty gap (pov) as a proxy for poverty. Financial development will play a role as an independent variable. It will consist of banking sector and as well as stock market. The dimension of banking sector is private credit to GDP (dpc) (Kpodar and Singh, (2011); Kappel, (2010) and Beck *et al*,(2004)). Private credit to GDP might be a good indicator of financial development in less developed countries, where traditional borrowing and lending activities are the key business in financial intermediaton because stock markets are either underdeveloped or non-existent (Seven and Coskun ,2016). Moreover, the other indicators for bank development that extensively used in the literature are private credit by bank (dpcb), banks capital to asset ratio (bcar), bank credit by financial sector (dfc) and bank liquid reserve to bank asset ratio (bliqu)

Recently, stock market development has received much interest in developing countries in the last 20-25 years, given the fact that the financial structure of these countries is mostly bank-based. Therefore, the indicators are stock value traded (stkt), and stock market turnover ratio (stkto), (Kpodar and Singh, 2011 and Kappel, 2010). This study also use three control variables named inflation and trade in order to test for robustness. We also used education factor to control human capital accumulation as many researchers include this factor since this is significant determinant for poverty

We use fixed effect and random effect techniques to address the problems. We run the following equation, which is the basic regression specification from the previous literature.

$$\mathrm{Pov}_{it} = \beta 0 + \beta 1\ \mathrm{FD} + \Upsilon \mathrm{X}_{it} + \varepsilon$$

Where Pov is poverty, FD is financial development and X will be control variables

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

4. Results And Discussion

This study adopts the basic regression specification from the previous literature. We estimate four specifications where's the first two specifications of ordinary least squred and fixed effect without the human capital accumulation factor while the next two specifications we add all the control variables. In all regressions, the left hand side variable is the poverty measures, which are defines as the poverty headcount. Table 1 shows the outcome of the regression of the bank development and capital market as a proxy for financial development towards poverty.

Table 1: Regression of the bank development and capital market as a proxy for financial development towards poverty.

	OLS	FE	OLS	FE
	(1)	(2)	(3)	(4)
stkt	0.124 (0.85)	-0.00885 (-0.23)	0.0221 (0.33)	-0.0159 (-0.59)
stkto	-0.0739 (-1.22)	-0.00192 (-0.07)	-0.00749 (-0.26)	0.0163 (0.88)
bcar	-0.998 (-1.67)	-1.492 (-8.61) ***	-1.293 (-4.32)***	-0.408 (-1.41)
bliqu	-0.195 (-1.24)	0.0629 (0.81)	0.325 (3.06)**	0.0218 (0.40)
dfc	-0.184 (-1.05)	0.00794 (0.15)	-0.124 (-1.56)	-0.0747 (-1.81)*
dpc	0.0992 (0.09)	0.000432 (0.00)	0.553 (1.10)	0.0735 (0.33)
dpcb	-0.117 (-0.10)	-0.162 (-0.05)	-0.436 (-0.81)	0.07533 (0.31)
inf	-0.171 (-0.59)	-0.0587 (-0.65)	0.119 (0.88)	-0.0818 (-1.31)**
trade	-0.00235 (-0.02)	-0.0605 (-1.52)	-0.124 (-241)*	-0.281 (-0.97)
ledu			-6.567 (-7.73)***	-14.12 (-4.23)**
Cons	33.01 (3.67) **	25.57 (7.16)***	122.2 (10.10)***	226.6 (4.77)***
Post Estimation Test				
R2	0.4713	0.8972	0.6712	0.5625

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

F-test		0.0000		0.000
LM Test		0.0856		0.0769

*Note: The table presents the result for the estimated coefficients and their robust standard errors in parathesis. The dependent variable is the poverty gap at $1.90 a day while the independence variable consist of banking development and capital market as a proxy for financial development. The following are also reported: specification statistics including R-squared, F-test (wald) and as well as LM test for Random Effect to test the difference in coefficients not systematic. *, ** and *** denote statistically significant coefficient at the 10%,5% and 1% respectively.*

From Table 1 it can be said that bank development fails to benefit in OIC developing countries. We find that only bank capital to asset ratio shows the negative significant result. However, when we focus on capital market, it shows both variables were not sigficant in reducing poverty. That is, the direct effect of bank development is still insignificant for OIC developing countries eventhough we had control for inflation and trade openness. Inflation shows the correct coefficient sign; however, it has no significance relationship with poverty. Economic literature has debated about the impact of inflation and income inequality where they stated that higher inflation tends to redistribute wealth between creditor and debtor, with the latter repudiating debt when unexpected inflation is high. Our estimations favour the former explanation where higher inflation leads to lower poverty in Muslim developing countries. Fixed effect (FE) explore the relationship between predictor and outcome variables within an entity. Each entity has its own individual characteristics that may or may not influence the predictor variables, the f- test for fixed effect shows the significant result where it telling us that fixed effect is a better analysis in this study compared to OLS. On the other hand, the LM test for random effect shows insignificant result, therefore OLS should be chosen rather than RE

Across the specification, when we add education as our control variable, it seems that the financial development plays a very well function in alleviating poverty especially from the banking development sectors same as Seven and Coskun (2016) and Honohan (2003). Bank capital to asset ratio and bank liquid reserve to bank asset ratio shows the significant results in alleviating poverty.The sign and significance level of the estimated coefficients did not change dramatically. However, the stock market development still shows the insignificant result for poverty alleviation same as previous result. Yet, still the negative relationship shows that stock market is an important factor to reduce poverty. The interesting points come when we add education variable. From the analysis, the education variable shows significant and negatively relationship with poverty alleviation.The finding was supported by Seven and Coskun (2016). The negative sign indicate that higher education can help to reduce poverty in Muslim developing countries because with education can enables individuals to acquire and use knowledge and skills to get a healthier life. Thus it can tell us that the human capital accumulation also can helps in alleviating poverty besides financial development.

5. Conclusion

Recently, the question of whether financial development can reduce poverty has been remaining examined over the last two decades. Even though, a large body of literature has been discussed that financial sectors are correlated with economic growth, theory encounter the predictions about the impact of financial development on poverty reduction. This study tests the hypothesis wheter financial development that consists of banking development and stock market would reduce poverty, in the context of Muslim developing countries. We use data from 48 Muslim developing countries for the period 2001 to 2014.

There are several points emerge in this study. First, with regard to the regression between bank development and poverty, we find that bank development measured by bank to capital asset ratio has a negative and significantly effect to poverty reduction. Next, the results of stock market development show the insignificant result with poverty, where it can be said constant with the fact that in Muslim developing countries the financial structure is most in banking sectors compared to stock market development. Third, it advocate the simultenaous effects of banking and stock market factors may not fully capture the effect of financial development and poverty where it shows the relationship between financial development and poverty apply negative but statistically insignificant effect.Thus, suggesting the investigation the separate effects of banking and stock market developments.Lastly, the results suggest the countries with high inflation are facing difficulties to alleviate the poverty, recommending the muslim developing countries need the steady macroeconomic factors. The regression results also suggest that the human factor accumulation representing by education have a negative significant impacts on poverty.

The negative and weak impact of financial developments and poverty alleviation indicate that financial development failed to fulfill the wants of poorest people of society in Muslim developing countries. Aforementioned, financial developmet is all about policies and programmes that carefully managed but extremely naïve and actually failed the poor. In order to ensure equal access, it is necessary to strengthen human capabilities and prepare them for productive employment.

This analysis has focused on the factors of financial development that consists of banking and stock market sectors due the availability of the data across countries and time, hence we do believe that the accessibility and the penetration of the financial services will be more relevant to alleviate poverty.It same goes to the factors of microfinance. Therefore, we leave to future researcher to explore the other factors of financial development on poverty reduction.

References

Arimah, B. (2004). Poverty Reduction and Human Development in Africa. *Journal of Human Development*, *5*(3), 399–415. http://doi.org/10.1080/1464988042000277260

Beck, T. (2013). Finance and Poverty : Evidence from India, (September), 0–69.

Besley, T., & Burgess, R. (2003). Halving Global Poverty. *Journal of Economic*

Perspectives, *17*(3), 3–22. http://doi.org/10.1257/089533003769204335

Evidence, C., Beck, T., Demirguc-kunt, A., & Levine, R. (2004). Finance , Inequality and Poverty : *NBER Working Paper Series*.

Galor, O., & Zeira, J. (1993). Income Distribution and Macroeconomics.

Giné, X., & Townsend, R. M. (2004). Evaluation of financial liberalization: A general equilibrium model with constrained occupation choice. *Journal of Development Economics*, *74*, 269–307. http://doi.org/10.1016/j.jdeveco.2003.03.005

Greenwood, J., & Jovanovic, B. (1989). Financial Development, Growth, and the Distribution of Income. *National Bureau of Economic Research Working Paper Series*, *No. 3189*. Retrieved from http://www.nber.org/papers/w3189%5Cnhttp://www.nber.org/papers/w3189.pdf

Guillaumont Jeanneney, S., & Kpodar, K. (2008). Financial Development and Poverty Reduction: Can there Be a Benefit without a Cost? *IMF Working Papers*, *8*(62), 1. http://doi.org/10.5089/9781451869248.001

Holden, P., & Prokopenko, V. (2001). Fin Dev and Poverty.Pdf.

Honohan, P. (2003). Financial Development , Growth and Poverty : How Close Are the Links ?

Ismail Sirageldin, . (2000). Elimination Of Poverty Challenges and islamic Strategies. *Islamic Economic Studies*, *8*(1), 1–16.

Jalilian, H., & Kirkpatrick, C. (2005). Does Financial Development contribute to Poverty Reduction., *41*(4), 636–657. http://doi.org/10.1080/00220380500092754

Janvry, A. de, & Sadoulet, E. (2000). GROWTH, POVERTY, AND INEQUALITY IN LATIN AMERICA: A CAUSAL ANALYSIS, 1970–94. *Review of Income and Wealth*, *46*(3), 267–287. http://doi.org/10.1111/j.1475-4991.2000.tb00843.x

Kappel, V. (2010). CER-ETH – Center of Economic Research at ETH Zurich The Effects of Financial Development on Income Inequality and Poverty Economics Working Paper Series The effects of financial development on income inequality and poverty ∗, (March).

Khadar, M. A. (2014). POVERTY ALLEVIATION ± CAUSES , MEASURES AND ISLAMIC SOLUTIONS WITH SPECIAL EMPHASIZES ON REDUCING WASTAGES Introduction : Objectives of this Research Paper :, 54–58.

King, R. G., & Levine, R. (1993). Finance, entrepreneurship and growth. *Journal of Monetary Economics*, *32*(3), 513–542. http://doi.org/10.1016/0304-3932(93)90028-E

Kpodar, K., & Singh, R. J. (2011). Does Financial Structure Matter for Poverty? Evidence from Developing Countries.

Levine, R. (1999). Law , Finance , and Economic Growth, *35*, 8–35.

Li, J., & Yu, H. (2014). Income inequality and financial reform in Asia: the role of human capital. *Applied Economics*, *46*(24), 2920–2935. http://doi.org/10.1080/00036846.2014.916390

Lowen, G. (2009). A Compendium of Poverty Reduction Strategies and Frameworks, 1–48. Retrieved from http://tamarackcommunity.ca/downloads/vc/Poverty_Reduction_GL_042209.pdf

Park, C., & Mercado, R. V. (2015). Fnancial Inclusion , Poverty , And Income Inequality In Developing Asia. *ADB Economics Working Paper Series*, (426).

Rajan, R. G., & Zingales, L. (1998). Which Capitalism?Lessons from the East Asian Crisis. *Journal of Applied Corporate Finance*, *11*(3), 40–48. http://doi.org/10.1111/j.1745-6622.1998.tb00501.x

Rajan, R. G., & Zingales, L. (2003). The great reversals: The politics of financial development in the twentieth century. *Journal of Financial Economics*, *69*(1), 5–50. http://doi.org/10.1016/S0304-405X(03)00125-9

Unpd. (2000). Poverty Reduction and UNDP. *Fast Facts UNPD*, (September).

Seven, U., & Coskun, Y. (2016). Does financial development reduce income inequality and poverty? Evidence from emerging countries. *Emerging Markets Review*, *26*, 34-63

Social Research and Training Centre for Islamic Countries (SESRIC).(2015). *OIC Economic Outlook*.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Game-Based Learning Approach to Improve Students' Learning Process in a Political Science Subject

`Ainatul Fathiyah Abdul Rahim[1], Nursyahida Zulkifli[2], Rafizah Mohd Noor[3], Shamsinar Rahman[4] and Muhammad Ariff Asyrul Adnan[5]

[1] Lecturer, Faculty of Administrative Science and Policy Studies, UiTM Cawangan Pahang, Kampus Raub, Malaysia
ainatul@pahang.uitm.edu.my

[2] Lecturer, Faculty of Administrative Science and Policy Studies, UiTM Cawangan Kelantan, Kampus Machang, Malaysia
syahidazulkifli@gmail.com

[3]Lecturer, Faculty of Administrative Science and Policy Studies, UiTM Cawangan Pahang, Kampus Raub, Malaysia
rafeezamn@gmail.com

[4]Lecturer, Faculty of Administrative Science and Policy Studies, UiTM Cawangan Pahang, Kampus Raub, Malaysia
shamsinar512@pahang.uitm.edu.my

[5]Lecturer, Faculty of Administrative Science and Policy Studies, UiTM Cawangan Pahang, Kampus Raub, Malaysia
ariffasyrul88@gmail.com

Abstract

Learning politics is vital for students especially in Diploma of Public Administration students. However, they often encounter difficulties in understanding the concepts, theories and processes that lead them to find it very complex, thus, reducing their interest to learn. It has been proven that by using a game-based pedagogical model, it brings benefits in the process to make complex educational concepts more approachable to the learners. Therefore, this paper attempts to explore students' perception towards an education game called *"Political Fun Race"* game. *Political Fun Race* is a game that is inspired by one of the popular childhood games – Snakes and Ladders. It is purposely designed to create an exploration to boost the interest of the students in Diploma of Public Administration in seeking political knowledge and it is deliberately developed to help them understand the major concepts in political science such as power, government, law and governance deeper. This game aims to improve the students' learning process via a game as a learning tool to add on besides lectures and traditional classroom. It consists of four (4) divided components (board, dice, counter and questions cards). The questionnaires were distributed to all part two students who enrolled in Course Code PAD120:

Political Science in UiTM Raub Campus in order to obtain the information of the study. The results found that majority of the students enjoyed playing this game and agreed that the innovation in teaching really helped them in understanding the subject and it has smoothen the learning process. Besides, it can enhance their general knowledge regarding political science. It is aligned with the aims of the Ministry of Higher Education Blueprint, thus, optimistically it will benefit all students regardless of their course, program, university or country as well as the public.

Keywords: game-based learning, political science subject, interactive learning

1. Introduction

The world is changing with the fast growth of information technology and rapid social change in the twenty-first century. The development of technology can cause various challenges and opportunities; however, it also provides advantages to the whole country including business, government, people and for the future. The quality of life of the population across the country can be improved through maximizing the opportunities of the development changes (Klaus, 2015). With that, higher education is gradually turning the academic institutions and academicians' attention to the new approaches towards education and learning.

Currently, there are many criticisms about Malaysian education system's inability to stimulate intrinsic academic motivation among students (Ong, Chan, Cho, & Koh, 2013). As reported in the mass media, the current education system does not fulfil the standard criteria of producing the graduates with soft skills and critical thinking skills (Mustafa, 2018). Due to this issue, Malaysian Higher Education begins to develop Malaysia Education Blueprint 2015 – 2025 (Higher Education) or MEB (HE). The ministry realizes that the education system needs to keep evolving to stay abreast with the global trends by introducing 10 shifts in the MEB (HE) that will continue the excellence of higher education. One of them is transforming the higher education delivery method that includes gamification (Ministry of Education Malaysia, 2015). A study found that gamification is an independent learning style that is practical and effective among university students (Mustafa, 2018). As reported in *The Star Online* by Yasmin Ahmad Kamil, the Ministry of Higher Education is looking to implement a flexible learning system for higher education institutions in Malaysia. According to the Minister of Higher Education, Datuk Seri Idris Jusoh, the flexible learning could also be done by emphasizing on gamification (Ahmad Kamil, 2016). Redesigning higher education is vital to ensure that our higher education system is at par with the global world and thus able to sustain Malaysia's higher education by producing well-versed graduates who are able to fulfil the demands of future employers. These are the reasons why the academics in the higher learning institutions are urged to diversify the delivery methods by introducing gamification in the teaching and learning system.

Besides, the evolution in technology that is changing from day to day has affected various fields and lifestyle of the population and the education system is not excluded. The conducts of teaching and learning process is still the same process but the methods can vary depending on the creativity of the instructors (Mohamad, Salam, & Bakar, 2017). Besides the traditional yet effective teaching and learning styles, such as, two ways communication namely lectures, one of the creative methods that is widely used by the instructors in the education system is gamification. Political science is a field that requires students to know a lot on general knowledge including the theoretical and practical part. The students might need to build a proper understanding in learning all the terms, theories and concepts. At the end of the learning session they will be able to relate all the components with the reality. But, the problem that they face is, it is quite hard for them to digest all of the heavy terms in politics. Due to this issue, the researchers have initiated the innovation towards the delivery system by introducing gamification in combination with the face to face lecture session. Shernoff, Csikszentmihalyi, Schneider, and Shernoff (2014) stated that the participants are more engaged in the individual and group work during the learning process and one of the methods used is gamification (Jui-Mei, Chun-Ming, Hwang, & Yueh-Chiao, 2011).

Various approaches have been introduced through gamification to engage in the students' learning but there are still criticisms on gamification. Therefore, the gamification method that is commonly used by the instructors can either be by using technology or game-based or both. Most of the present studies focus on the gamification by using technology or is known as online learning or e-learning (Ebner & Holzinger, 2007; Huizenga, Admiraal, Akkerman, & Dam, 2009; Jui-Mei, Chun-Ming, Hwang, & Yueh-Chiao, 2011; Kiili, 2005; Mohamad et al., 2017; Papastergiou, 2009; Van Eck, 2006; Vásquez, Peñafiel, Cevallos, Zaldumbide, & Vásquez, 2017). However, there are only a few studies on the game-based learning without using technology (Ong et al., 2013). As the concept of gamification is still in its embryonic stage, there is a scarce resource of research papers and journals on this concept. Therefore, the aim of this present study is to improve the students' learning process via a game as a learning tool besides the currently existing lectures and traditional classroom method.

2. Review of Literature

Some previous studies have been conducted by scholars in studying the use of gamification as a tool to help the students to enhance their level of understanding. Some of the studies have been chosen in line with the purpose of this paper such as Marcos, Dominguez, Saens-de Navarete and Pases (2014) who have conducted an interesting research in comparing gamification and social networking on e-learning. In this study, the argument has been raised by comparing social networking, gamification and traditional e-learning in proving the benefits of this pedagogical strategy as a guide to the students in learning process. The study on traditional e-learning approach has proved that the participants in the novel study approaches get better results concerning skill acquisition and by looking at the context of traditional approach has yielded better result for knowledge acquisition. The result of this argument has shown that the students' attitude towards the new tool is positive particularly in increasing the level of understanding in learning process among the students.

As the above study has discussed on the comparison of the use of gamification, social network and traditional e-learning in helping the students to develop their proper understanding in knowledge, Ian (2013) in "*Play as You Learn: Gamification as Technique for Motivating Learners*" and Baner, Callan and Amstrong" (2014) in

"*Psychological Theory and The Gamification in Learning*" have made an important research in studying psychological theory and gamification as the elements of learning. In this study, they have raised an argument on the lack of theoretical foundation on gamification of learning and the uses of gamification as motivational approach in learning. They have identified and explored several theories from the domain of psychology to provide the theoretical foundation for gamification in learning. Several theories have been recognized in this paper in proving the argument they have raised as follows: i) theory of gamified instructional design, ii) classic conditioning theories, iii) expectancy-based theories, iv) goal-setting theory, v) self-determination theory. All these theories have been tested in order to get result and to relate it to the gamification research. The result showed that gamification is not a new instructional approach "per se" but instead is a new combination and presentation to classic motivational techniques and gamification is perceived as one of the learning activities that encourages active participation from the students. Even though the result showed that gamification is not a new instructional approach, but the study has proved that gamification is a new kind of combination of motivational techniques in learning process. Finally, they came up with recommendations for both gamification researchers and practitioners to best advance the study of gamification using the study as a theoretical basis.

In addition, the study of gamification with the relations towards empowering the use of language among the students has also been made by Flores (2015) in "*Using Gamification to Enhance Second Language Learnin*g" and Perry (2015) in "*Gamifying French Language Learning: A Case Study Examining a Quest-Based, Augmented Reality Mobile Learning-tool*". Both papers focused on the importance of learning with second language by using gamification by assuming that this kind of mechanism motivates learners in their pursuit of achieving fluency. Gamification has been used as an adaptation to digital native and digital immigrants as a learning tool or pedagogical strategy. Both authors had the same ways of raising their arguments that gamification does not only incorporate game elements, but it also uses game design techniques in non-game context. This has empowered and changed the learners' motivational skills towards a learning approach and sustaining a relaxed atmosphere. Finally, they have come up with an important model on educational gamification which included: i) understanding the target audience and the context, ii) defining learning objectives, iii) structuring the experience, iv) identifying resources and v) applying gamification elements.

Furthermore, Robson, Plangger, Kietzmann, Mc Charthy and Pitt (2016) highlighted a main point which is gamification utilizes a wide range of game design elements, and appropriate alignment of gamification elements that consists of mechanics, dynamics, and emotions will determine the success in gamification. All these elements will be extremely important for a better gamified experience which the enjoyment a user can get from game element (Fitz-Walter et al., 2017). Since gamification aims to integrate more fun and engagement into education while providing positive feedback but at the same time pushes students to be more interested, motivated, and stimulated to learn (Muntean, 2011). However, increasing motivation is not an easy task, thus, the effective design and application of the gamification experience also require great effort (Domínguez et al., 2013). Several review on gamification of education revealed that several game elements are used in studies to gamify education, for example, points, levels/stages, badges, leaderboards, prizes, progress bars, storyline, and feedback (Nah et al., 2014). Meanwhile, Lister (2015) reported the most commonly implemented forms of gamification as points, badges, achievements, leaderboards, and levels. These also can be supported by some results that showed that the utilization of game mechanics, which are points, badges, and a leaderboard, resulted in students' having a more positive attitude towards the course and more engagement in the discussion forum and gives impacts on cognitive and behavioral engagements of university students from an Asian university through experimental and quasi-experimental studies (Hew, Huang, Chu and Chiu, 2016).

3. Methodology

3.1 Materials for the game

To play the "*Political Fun Race*" game, there should be:

i. Five (5) students (maximum number of players)
ii. One (1) game board
iii. One (1) dice
iv. Five (5) counters
v. Question cards
vi. One (1) user manual on how to play

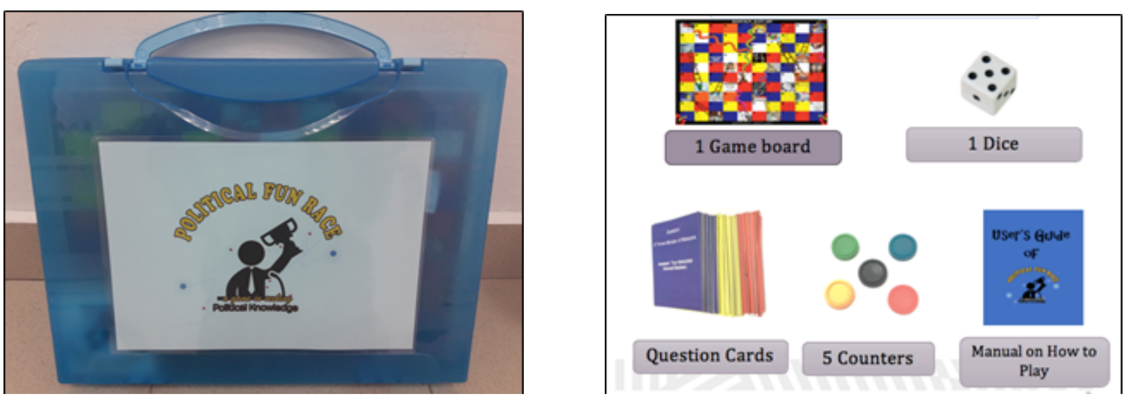


Figure 1: The tools inside the "Political Fun Race" game box

3.2 Game Applied

Performance : Students will participate in "*Political Fun Race*" and develop their knowledge through the correct and incorrect answers among themselves.
Conditions : Students will be judged on their performance based on consecutive and successful correct answers.
Standards : Students will be judged on their performance based on continually and successfully answering the questions.
Repetitions : The learning opportunity through question cards. Students will play the game as to revise the previous lectures.

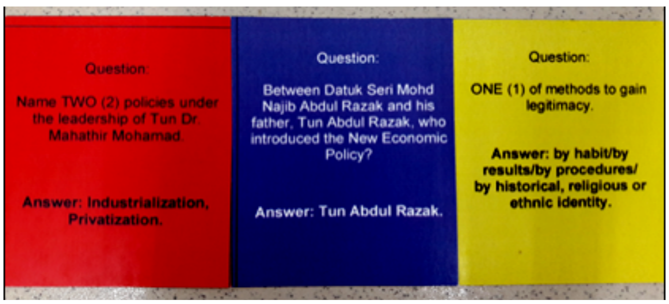


Figure 2: Question cards consist of level of difficulties such as 'easy', 'medium' and 'difficult' will determine performance, conditions, standards and repetitions

3.3 Description of Game

Step 1
1. Each player will put their counter on the space that says 'start'.
2. Each player will take turns to roll the dice to determine the turn - 1st, 2nd, 3rd, 4th and 5th place. The player with the highest number on the dice will go first.
3. The first player will start playing by rolling the dice. You move your counter forward the number of spaces as shown on the dice.

Step 2
1. If the counter lands at any space entitled **successful event of politics**, you can move up to the top of the ladder.
2. If the counter lands on any space entitled **crisis event of politics**, you must slide down to the bottom of the space given
3. If the counter lands on the coloured spaces – **RED, BLUE, or YELLOW** – you need to answer the questions based on the given question cards.

Step 3
1. The observant will read the question and you must answer the question within 60 seconds. A timekeeper is responsible to observe the time.

Step 4

1. If the **ANSWER IS INCORRECT**, you will **MISS THE TURN** for the next round. Meanwhile, if the answer is correct you will remain at your position until your turn takes place.
2. If the counter lands on coloured space that is **WHITE**, it shows that you are **FREE** to perform any action and do not need to answer the given question of politics.

Step 5

1. However, if your counter lands on existing player space, therefore, the existing player needs to move **ONE SPACE BACKWARD**.
2. The winner is the player who gets to the last space on the board first.

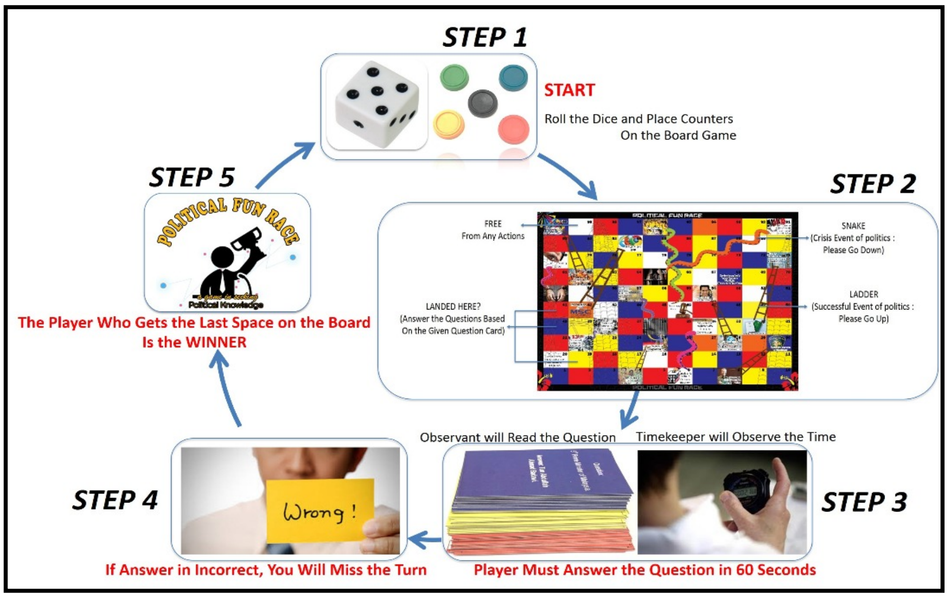


Figure 3: The steps on how to play the game

Application

In order to achieve the intended learning outcome as a game in seeking knowledge, below is the application of "Rules and Regulations" for the game to create an element of learning while educating.

Rules and Regulations:

1. Students must act and behave as a good citizen.
2. Students are not allowed to cheat in this game. They are not allowed to use other than the materials provided in the game.
3. Lecturer may monitor the students as the game starts.
4. Respecting the others:
    a. All participants must respect the turn taken by other players when the other players obtain number six that enable them to roll the dice twice.
    b. All participants must accept the loss if the answer is incorrect which will cause them to miss the turn for the next round.
    c. All participants must accept the loss when the player lands in the counter space which has existing player space that will cause them to be one step backward.
    d. The total number of participants will be seven (7). Five (5) of them will be the players while the other two (2) will be the observants. The first observant is responsible to read the question cards while the second one will act as a timekeeper to make sure each player answers the questions within 60 seconds. All participants must listen carefully to the instructions and respect the observants.
5. The first player to reach the last space first will be considered as a winner. If the player rolls too high, it will "bounce" off the last square and is required to move backwards. The player will only win by rolling the exact number needed to land on the last square.
6. The player has to accept and continue playing while waiting for the turn to roll the dice.

3.5 Instrument

In order to evaluate the result of the application of this game in the classroom, the data were obtained from the questionnaires which were distributed after the learning experience. The distribution of the questionnaires was conducted through online survey, which was created using Google Form. The total number of students of Diploma in Public Administration for Course Code PAD120: Public Financial Administration, in UiTM Pahang Kampus Raub consists of 154 respondents. In this study, the descriptive analyses were used to analyse the data. Further explanations about the findings were discussed in the result section. There are two sections in the questionnaire which are section A and B. Section A consists of the questions related to the demography of the respondents such as name, gender and student's current semester. Section B consists of multiple choice questions of respondents' feedback about the learning experience after playing "*Political Fun Race*". The questions lead the respondents to choose options

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

ranging from either Yes or No. Based on this study, the researchers are able to identify the student's perceptions towards the new approach of game-based learning.

4. Results

Based on the survey that had been done, a total number of 154 responses had been received throughout the semesters of September 2017 to January 2018. A total number of 11 questions with 2 sections were prepared for the students. The survey was conducted among Diploma in Public Administration students taking Course Code PAD 120: Introduction to Political Science. Among the 154 respondents, 24.7% were male while 75.3% were female respondents. Since PAD120 course was offered to the part 2 students, therefore, a total of 92.9% of the respondents were from part 2 while the rest were from parts 3 and 6. This indicates that the remaining 7.1% were either repeaters or registered students.

Table 1: The Students Feedback

NO	QUESTIONS	YES (%)	NO (%)
1	The Political Fun Race game is FUN.	**100**	**0**
2	I enjoy and learn something new from this game.	**99.4**	**0.6**
3	I am familiar with all the terminologies of political science used in the game.	**89.6**	**10.4**
4	I am able to enhance my general knowledge through this game.	**99.4**	**0.6**
5	I am able to relate this game with the courses in Diploma of Public Administration.	**99.4**	**0.6**
6	I agree this game should be used during tutorial class as one of the methods for teaching and learning.	**99.4**	**0.6**
7	I agree this game can create awareness on current political issues.	**98.1**	**1.9**
8	I would recommend this game to be used to other students/ institutions taking/teaching political science subject.	**100**	**0**
9	In my opinion, this game is related to the course that I have learnt below: 1. Introduction to Public Administration 2. Political Science 3. Government and Politics	 **2.6** **72.1** **25.3**	

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

From the study that had been conducted, it was found that 100% of the respondents of *"Political Fun Race"* game had fun playing the game. In receiving the feedback from the students about whether they enjoyed and learned something new from this game, 99.4% of the respondents claimed that they enjoyed the game, while 0.6% did not. In spite of that, they were also asked whether they are familiar with all of the terminologies of political science that had been used in the game. 89.6% responded that they were familiar while 10.4% were not familiar with the terms. It is assumed that they were still confused with some of the terminologies used. Furthermore, a question was also asked on whether this game has helped them to enhance their general knowledge and 99.4% agreed while the rest disagreed with the statement. The same result was obtained for the questions of whether they are able to relate this game with the courses in Diploma of Public Administration or not and in the question that 'I agree this game should be used during tutorial class as one of the methods for teaching and learning'.

The second last question is on whether the students agree this game can create awareness on current political issues or not and 98.1% of them agreed while the rest did not. The last question is "I would recommend this game to be used to other students/ institution taking/teaching political science subject" and 100% of the students agreed to the statement.

Among the items asked to the students is to measure the students' understanding relating to the relationship of this game with the courses that they have learned, whereby the question was, "In my opinion, this game is related to the course that I have learned". The result found that 72.1% answered that it is related to political science, 25.3% responded that it is related to government and politics and the remaining 2.6% responded that it is related to Introduction to Public Administration.

5. Discussions

It cannot be denied that Political Science is a complex subject. Therefore, the students often encounter difficulties in understanding the concepts, theories, terminologies and processes. It leads them to feel that the subject is very complicated, thus, decreasing their motivation to learn. In order to overcome these issues, the researchers introduce a game-based learning system to inject the excitement in learning political subjects among the students. The game is called *"Political Fun Race"*. The aim of this study is to explore students' perceptions towards *"Political Fun Race"* as a teaching tool.

"Political Fun Race" is a traditional type of game. It is a face-to-face interaction game. It contradicts with the digital games that are frequently played by Y generation nowadays. Surprisingly, based on the results, 100% of the respondents agreed that *"Political Fun Race"* game is fun. During the playing session, researchers could clearly see that the students had a really good time. They were laughing, screaming enthusiastically and were clapping hands when they were able to answer the questions correctly. This is in line with the findings by Billinghurst and Kato (2002). According to both of them, unlike interactions in digital games via computers, face-to-face interaction games expose people to human expressions, physical actions, and verbal tones. This finding is also supported by Eric Zhi Feng Liu and Po-Kuang Chena (2013). By using games as a medium for game-based learning, it could enhance the direct interpersonal interaction

between teachers and students as well as among the students (Liu & Chena, 2013). Hence, we can claim that by playing the game, rolling the dice, moving the counter, reading the question cards, competing or cooperating with peers through direct verbal communication, the students can interact with one another and learn happily from each other.

Other than that, 99.4% of the respondents enjoyed playing the game and agreed that the game has assisted them in the acquisition of new knowledge related to political science. Through game-based learning, it helps the participants to learn more actively and with greater interest, enabling the learned content to leave a deeper impression than it would be by using conventional methods alone (Papastergiou, 2009). A game-based learning has been applied in many science-related school subjects. Yien, Hung, Hwang and Lin (2011) used game-based learning in a nutrition course, discovering that this approach is more effective in enhancing the learning effectiveness and attitudes of the students than the traditional teaching approach and even influenced their dietary habits. Using a game similar to Monopoly to teach students about the area of circles, Lin, Liu, Chen, Liou, Chang, Wu and Yuan (2013) also obtained the identical results. This finding shows that if the students enjoy and possess a greater interest towards something, in this case referring to game-based learning *"Political Fun Race"*, it will indirectly let them open their heart to love the subject.

The result also indicated that 89.6**%** of the participants agreed that they are familiar with all of the terminologies of political science that had been used in the game. It shows that while playing the game, the students can revise their knowledge simultaneously.

On top of that, 99.4% of the respondents agreed that *"Political Fun Race"* game should be used during tutorial class as one of the methods of teaching and learning. The majority of the students accepted this learning method and hoped to continue using this approach in the future. The result showed that 100% of the students would recommend this game to be used to other students/institutions who are taking/teaching political science subjects. The students also expressed that learning with this game could assist them to gain knowledge and it also increased their interest and awareness on current political issues in Malaysia.

In a nutshell, game-based learning helps the students to improve knowledge, acquire problem-solving skills and make it possible for them to interpret their society, nature and the world around them through experiences (Sukran Ucus, 2015). *"Political Fun Race"* for example, provides relevant information related to political science subjects. That is why it is very important for the social studies courses, especially for political sciences subject to apply game-based learning in class which aims to train the students as active members of a classroom. Based on the findings, the researchers can say that, a game-based learning approach is capable in improving students' learning process in a political subject.

6. Conclusion

Through the game-based learning approach, this project is seen to be able to provide students to have a more fun and interactive learning environment. Besides the conventional method of teaching and learning which is face-to face, game-based learning method is an innovation that can increase students' motivation, engagement and understanding. Moreover, the instructors may add the elements of fun, cooperation and competition during the face-to-face classes. It is clear that a game-based learning method offers an exciting opportunity to promote the engagement among the students in understanding the political studies (Pho and Dinscore, 2015; Dominguez et al., 2013). Furthermore, it is hoped that this project can make the process of learning more engaging and motivating to the students. It is supported by Glover (2013), where his study found that the elements of motivation can be injected in the game-based learning education by encouraging the students to fully complete the activities as required by the game. It is an important consideration for the instructors to carefully observe the implementation of the project either by encouraging good behavior or discouraging bad behavior. Lastly, this project is competent in providing positive effects towards the students' learning of political science subjects. It can also create a variety in the education tools of learning in conducting teaching and learning process.

Overall, the students are very positive about the game-based learning method and they believe that it can improve their political knowledge. In future, it is an urgency to have a greater collaboration with the Ministry of Higher Education as well as with the private institutions in order to upgrade this game to be in the form of *mobile apps*. In such way, this project will have a greater impact by emerging ideas in education and technology. Moreover, in order to expand the larger targeted groups, it will be a great idea of collaboration for each library unit in every education institution to establish one section for game centre. By having a game centre, everyone can have the opportunity to experience the game session without restriction hour such as in the classroom or tutorial hour only. Another recommendation for further studies is in the advancement aspect of game application which is to make it real like *"Let's Politics Let's on Live*" which allows the students to play in real setting as they themselves will act as the counters. They will act, play, move, write, speak, and respond in 'live' to stimulate greater power of excitement and enjoyment while playing in order to empower both cognitive and behavioural aspects. All these efforts will improve the current educational system to adapt to any style of learning and utilize the countless engaging tools that are available to everyone. It will also create a wider impact of commercialization as well as applicability not only to the political science students but also for all Malaysians.

References

Ahmad Kamil, Y. (2016, January 19). *Government moots flexi system for higher education*. The Star Online. Retrieved from https://www.thestar.com.my/news/nation/2016/01/19/govt-moots-flexi-system-for-higher-education/

Baner. K.N., Callan, K.C. & Amstrong, M.B. (2014). Psychological Theory and The Gamification of Learning. In Reiners, T. & Wood, L. *Gamification in Education and Business*. SPringer: Champ.

Billinghurst, M., & Kato, H. (2002). *How the virtual inspires the real. Communications of the ACM*, 45(7), 64-70

Domínguez, A., Saenz-de-Navarrete, J., de-Marcos, L., Fernandez-Sanz, L., Pages, C., & Martínez-Herraiz, J. (2013). Gamifying learning experiences: Practical implications and outcomes. *Computers and Education,* 63, 380e392. https://doi.org/ 10.1016/j.compedu.2012.12.020.

Ebner, M., & Holzinger, A. (2007). Successful implementation of user-centered game based learning in higher education: An example from civil engineering. *Computers & Education*, 49(3), 873–890.

Fitz-Walter, Z., Johnson, D., Wyeth, P., Tjondronegoro, D., & Scott-Parker, B. (2017). Driven to drive? Investigating the effect of gamification on learner driver behavior, perceived motivation and user experience. *Computers in Human Behavior*, 71, 586e595. https://doi.org/10.1016/j.chb.2016.08.050.

Flores, J.FF. (2015). Using Gamification to Enhance Second Language Learning: *Digital Education Review*. Vol 27.

Huizenga, J., Admiraal, W., Akkerman, S., & Dam, G. ten. (2009). Mobile gamebased learning in secondary education: engagement, motivation and learning in a mobile city game. *Journal of Computer Assisted Learning*, 25(4), 332–344.

Ian, G. (2013). *Play As You Learn: Gamification as a Techniques for Motivating Learners.* In Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2013 Chesapake.

Jui-Mei, Y., Chun-Ming, H., Hwang, G.-J., & Yueh-Chiao, L. I. N. (2011). A game-based learning approach to improving students' learning achievements in a nutrition course. TOJET: *The Turkish Online Journal of Educational Technology*, 10(2).

Kiili, K. (2005). Digital game-based learning: Towards an experiential gaming model. *The Internet and Higher Education*, 8(1), 13–24.

Klaus, S. (2015, December 12). *The Fourth Industrial Revolution: What It Means, How to Respond*. Retrieved February 22, 2018, from https://www.foreignaffairs.com/articles/2015-12-12/fourth-industrial-revolution

Lin, C. H., Liu, E. Z. F., Chen, Y. L., Liou, P. Y., Chang, M., Wu, C. H., & Yuan, S. M. (2013). Gamebased remedial instruction in mastery learning for upper-primary school students. *Educational Technology & Society*, 16(2), 271-281.

Liu, E. Z. F., Lin, Chena, P.K. (2013). The Effect of Game-Based Learning on Students' Learning Performance in Science Learning – A Case of "Conveyance Go" Procedia - ***S****ocial and Behavioral Sciences* 103 (2013) 1044 – 1051

Lister, M. C. (2015). Gamification: The effect on student motivation and performance at the post-secondary level. *Issues and Trends in Educational Technology*, 3(2).

Marcos, L.D., Dominguez, A., Saens-de-Navarete, J. S. & Pages, C. (2014) An Empirical Study Comparing Gamification and Social Networking on E-Learning. *Computers and Education*. Vol 75: 82-91.

Ministry of Education Malaysia. (2015). *Malaysia Education Blueprint 2015-2025 (Higher Education)*. Putrajaya, Malaysia. Retrieved from www.moe.gov.my

Mohamad, S. N. M., Salam, S., & Bakar, N. (2017). *An analysis of gamification elements in online learning to enhance learning engagement*. In Proceedings of the 6th International Conference on Computing & Informatics (pp. 452–460). Sintok: School of Computing.

Muntean, C. I. (2011). *Raising engagement in e-learning through gamification*. In Proc. 6th international conference on virtual learning ICVL (pp. 323e329).

Mustafa, Z. (2018, January 3). *Producing Highly Skilled Workforce for the 4IR*. New Straits Times. Retrieved from https://www.nst.com.my/education/2018/01/320969/producing-highly-skilled-workforce-4ir

Nah, F. F., Zeng, Q., Telaprolu, V. R., Ayyappa, A. P., & Eschenbrenner, B. (2014). Gamification of education: A review of literature. *HCI in Business,* 401e409. https://doi.org/10.1007/978-3-319-07293-7_39.

Ong, D. L. T., Chan, Y. Y., Cho, W. H., & Koh, T. Y. (2013). *Motivation of learning: An assessment of the practicality and effectiveness of gamification within a tertiary education system in Malaysia*. In World Academy of Researchers, Educators, and Scholars in Business, Social Sciences, Humanities and Education Conference (pp. 131–146). Cape Town, South Africa.

Papastergiou, M. (2009). Digital game-based learning in high school computer science education: Impact on educational effectiveness and student motivation. *Computers & Education*, 52(1), 1–12.

Papastergiou, M. (2009). Digital game-based learning in high school computer science education: Impact on educational effectiveness and student motivation. *Computers and Education*, 52(1), 1-12.

Perry, B. (2015). Gamifying French Language Learning: A Case Study Examining a Quest-Based, Augmented Reality Mobile Learning-Tool. *Procedia-Social and Behavioural Sciences*. Vol 174: 2308-2315.

Ucus, S. (2015). Elementary School Teachers' Views on Game-based Learning as a Teaching Method. *Procedia - Social and Behavioral Sciences* 186 (2015) 401 – 409

Van Eck, R. (2006). Digital game-based learning: It's not just the digital natives who are restless. *EDUCAUSE Review*, 41(2),16.

Vásquez, S., Peñafiel, M., Cevallos, A., Zaldumbide, J., & Vásquez, D. (2017). *Impact of Game-Based Learning on Students in Higher Education*. In Conference: International Conference on Education and New Learning Technologies (pp. 4356–4363). https://doi.org/10.21125/edulearn.2017.1942

Yien, J. M., Hung, C. M., Hwang, G. J., & Lin, Y. C. (2011). A game-based learning approach to improving students' learning achievements in a nutrition course. *The Turkish online journal of educational technology*, 10(2), 1-10

APPENDIX 1

Examples – Types of Questions in the Question Cards

No	Type of Questions (Level)		
	Easy	Medium	Hard
1	**Question:** One of field that relates to political science. **Answer:** economics/ sociology/philosophy/ psychology, geography, law, history.	**Question:** Sources of authority. **Answer:** traditional, charismatic, legal-rational.	**Question:** Abraham Lincoln's famous quote on democracy. **Answer:** Democracy is "a system by the people, from the people and for the people."
2	**Question:** Electoral system is synonym to what political system? **Answer:** Democracy	**Question:** Elements on the state. **Answer:** populations, territory, government, sovereignty.	**Question:** Lord Acton's famous quote on power. **Answer:** "power tends to corrupt and absolute power corrupts absolutely
3	**Question:** Malaysia's Head of Government. **Answer:** Prime Minister	**Question:** Three bodies of government. **Answer:** executive, legislative, judiciary	**Question:** One method to establish constitution. **Answer:** King's Decree/ Evolution/ Revolution/ Constituent Assembly.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Using i-Learn for Online Assessment: Lecturers' Perceptions

Ch'ng Pei Eng[1], Muniroh bt Hamat[2], Ng Set Foong[3], Chew Yee Ming[4], and Mahanim bt Omar[5]

[1]Department of Computer and Mathematical Science,
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia
chng@ppinang.uitm.edu.my

[2]Department of Computer and Mathematical Science,
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia
muniroh@ppinang.uitm.edu.my

[3]Department of Computer and Mathematical Science,
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia
setfoong@yahoo.com

[4]Department of Computer and Mathematical Science,
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia
chewyeeming@ppinang.uitm.edu.my

[5]Department of Computer and Mathematical Science,
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia
mahanim@ppinang.uitm.edu.my

Abstract

This paper describes a study carried out in Universiti Teknologi MARA to explore the lecturers' perceptions of online assessment. A survey questionnaire was administered on a sample of 40 full-time Computer and Mathematical Sciences lecturers in October 2017. The survey items focus on seven dimensions: (1) affective factors, (2) validity, (3) practical issues, (4) reliability and fairness, (5) security, (6) pedagogy issues and (7) the intention to conduct online assessment. The aim of the survey was to investigate lecturers' perceptions of using i-Learn as assessment tool and to analyze whether their perceptions differ based on their area of specialization. The findings of the survey indicate that i-Learn online assessment tool was under used and the lecturers' intentions to conduct online assessment are still very low. Their main concern is generally due to the nature of the subject taught which they think it is not appropriate to be tested online. Besides that, issues related to system security, cheating in digital age, and multiple-choice type of test items were some factors that hindered them from adopting online assessment. Lastly, the paper concludes that i-Learn does not fully addressed the critical need of Computer and Mathematical Sciences lecturers in order for them to adopt and increase their use of online assessment in their courses. Furthermore, perhaps the training module for this group of lecturers should be redesigned to expose them how to design the new test items which can assess on the higher order thinking skills.

Keywords: Formative assessment; online quizzes; Online tests; Computer and Mathematical Sciences lecturers.

1. Introduction

To promote the blended learning, some universities are starting to use various e-learning platforms, such as Blackboard, Moodle, and world wide web as a mechanism for delivery of knowledge. At the same time, researches are carried out to find ways and focus on the possibilities to reform the operational of assessment so that it will be consistent with the changing educational needs of students. Although the infusion of technologies such as smart phones, tablets, laptops and internet in teaching and learning in Malaysia education settings are widespread, but their usage for educational assessment is still limited.

i-Learn is an official e-learning portal for Universiti Teknologi MARA (UiTM) that uses the internet to support UiTM face-to-face teaching and blended learning activities. The evaluation components for most of the courses offered in UiTM are divided into two types, namely formative assessment and summative assessment. There are differences between these two types of assessment. Formative assessment is an assessment for learning, and summative assessment is an assessment of learning. Currently, the i-Learn system for online assessment in UiTM is for formative rather than summative assessment. The features available in the system to support formative assessment are online discussion forums, online quizzes, and electronic submission of written assignments, which can streamline administrative processes. It is hoped that the system will help to manage large volumes of marking, and provides efficiency for assessment-related administration work. Thus reduce lecturer academic workloads. i-Learn has been implemented for quite some time since 2005. Many professional trainings had been carried out to encourage and promote the lecturers to use this system (Adora Endut et al., 2012).

The interface of the first assessment page of i-Learn is shown in Figure 1. In this page, the lecturer is required to type in the name of the assessment.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

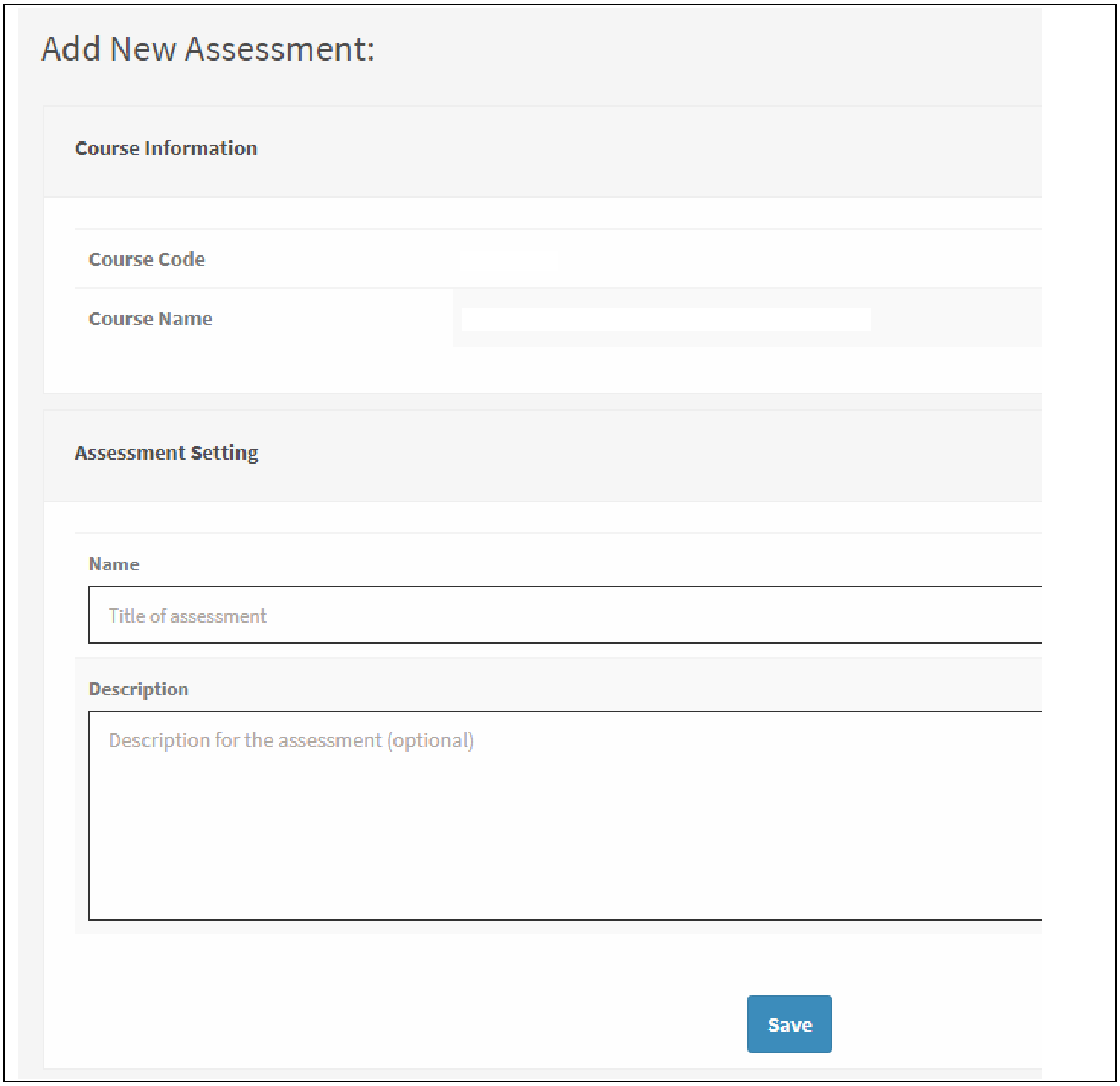


Figure 1: A screen-shot of creation of online assessment page via i-Learn portal

Figure 2 depicts the interface of the second assessment page of i-Learn where the lecturer can start to design the assessment item. There are four types of question can be created as shown in Figure 3. Lecturers have a full control to create their own assessment questions.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

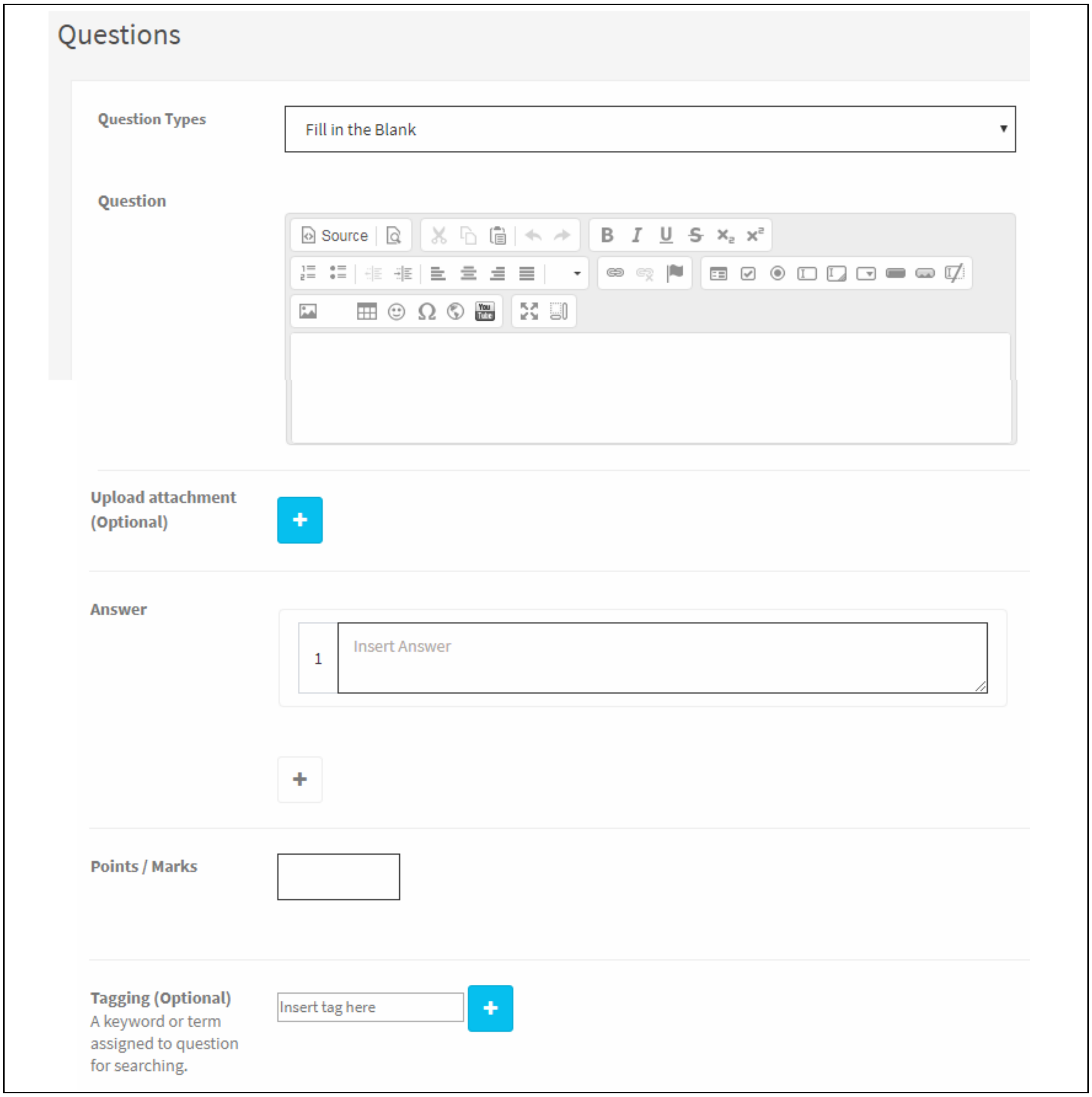


Figure 2: A screen-shot of creation of a question page via i-Learn portal

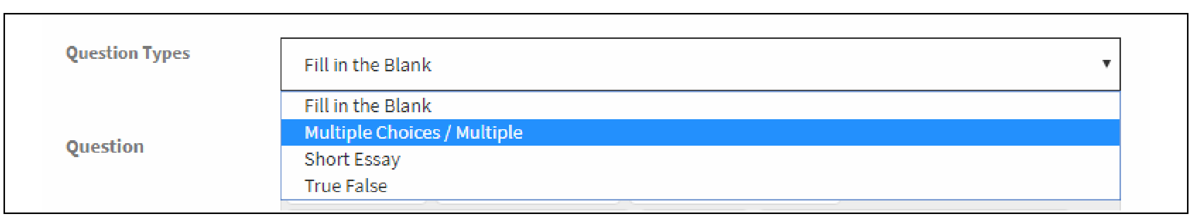


Figure 3: Four types of questions can be created via i-Learn portal

INSIGHT JOURNAL
UiTM Cawangan Johor

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Once the assessment is conducted, the lecturer can assess the Gradebook page as shown in Figure 4. This is the page where allows the lecturer to view and download the marks of the students. Automated marking is only available for fill in the blank, true-false, and multiple choice items.

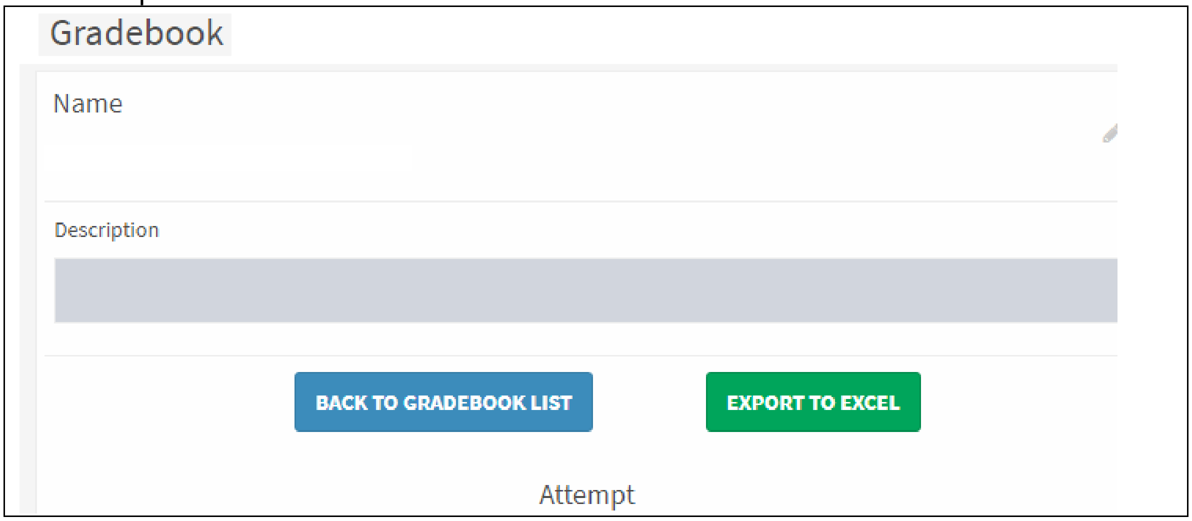


Figure 4: A screen-shot of gradebook page via i-Learn portal

What is the implication of the introduction of technology into assessment? Perhaps, it would be valuable to investigate on the usage of this system in conducting formative assessment among the lecturers, and to find out whether the technology addresses a critical need particularly among Computer and Mathematical Sciences lecturers. The purpose of the study is to answer the following questions.

The specific research questions of this study are listed below:

(1) How many of the Computer and Mathematical Sciences lecturers have tried out conducting online assessment with i-Learn within their courses?

(2) What are the lecturers' perceptions of each dimension (i.e., affective factor, validity, practicality, reliability and fairness, security, and pedagogy) related to the use of i-Learn for online assessment?

(3) Do the Computer and Mathematical Sciences lecturers have the intention to continue in adopting i-Learn online assessment as a form of formative assessment for their teaching courses?

(4) Is there a significant difference among lecturers' area specializations in terms of their perceptions towards the affective factors, validity, practicality, reliability and fairness, security and pedagogy scales?

(5) Is there a significant difference among the lecturers' area of specializations in terms of their intention to use online assessment?

2. Methodology

This study adopted the descriptive approach in the survey research. The population for this study consists of all the lecturers in Faculty of Computer and Mathematical Sciences of Universiti Teknologi MARA (UiTM). A convenience sampling technique is used to select the respondents for this study. A sample of 40 lecturers from the Department of Computer and Mathematical Sciences (JSKM) in Universiti Teknologi MARA Pulau Pinang was invited to participate in this study. Lecturers in this department of this campus are responsible for the delivery of the teaching of computer sciences, mathematics and statistics for undergraduate engineering students, and hotel and management students. There is a total of 14 courses offered in this campus including diploma and degree levels. Three courses taught by the computer sciences lecturers are CSC128-Fundamentals of Computer Problem Solving, CSC425-Introduction to Programming, and, CSC430-Computer Programming and Applications. Nine courses taught by the mathematics lecturers are MAT133-Pre Calculus, MAT183-Calculus I, MAT235-Calculus II for Engineers, MAT285-Further Mathematics for Engineers, MAT435-Calculus for Engineers, MAT455-Further Calculus for Engineers, MAT480-Further Differential Equations, MAT575-Introduction to Numerical Analysis, and, MAT565-Advance Differential Equations. Two courses taught by the statistics lecturers are STA404-Statistics for Business and Social Sciences, and, STA408-Statistics for Science and Engineering.

A questionnaire entitled “Lecturers’ Perceptions of Using Online Assessment” was used in this study. The questionnaire was adapted from a study conducted by Dermo (2009). Originally, Dermo (2009) researched the students’ perceptions of e-assessment by breaking down the main concepts into six dimensions which were affective factors, validity, practicality, reliability and fairness, security and pedagogy. In order to suit the purpose of this study, the authors of this paper have modified Dermo’s instrument which intended to measure the lecturer’s perceptions in seven dimensions. These include the affective factor, validity, practicality, reliability and fairness, security, pedagogy, and the intention to use. A rating scale of (1) to (7) was used in the questionnaire, where the smallest value (1) represents “Strongly disagree” and the largest value (7) represents “Strongly agree”.

This survey was conducted in October 2017. The questionnaires were distributed in two formats, paper-based as well as online format. The questionnaire was then checked for the internal validity using the reliability test. It was done using the data collected from the questionnaires which involved N = 31 lecturers. In this study, the coefficient of reliability, Cronbach’s alpha value, is 0.701 which means that about 70.1% of variation in the data has been explained. It can be considered as an acceptable value indeed (George & Mallery, 2003; Sakaran, 2003).

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

The results of the administered questionnaire were first analysed with descriptive statistics. The data were coded and analysed using Statistical Package for Social Sciences (SPSS) version 21 for windows. The statistical tests used were the descriptive analysis involving the percentage and mean. The mean value for each dimension within the quantitative component was calculated. These values were used to group variables based on their value. Values relate to a scale of one to seven. One-way analysis of variance (ANOVA) was then conducted to compare whether there is a significant difference in the rating scores among the three lecturer's area specialization groups. All the tests were assumed to be a two-tailed test and 5% significance level.

3. Results and Discussion

3.1 Demographic Profile of the Participants

This section presents a summary of the background of the lecturers that participated voluntarily in this study. The questionnaire was directed to each respondent to ensure that the necessary information was captured and measured accurately. Of the 40 JSKM lecturers invited for the sample, a total of 31 responded and this provided a final response rate of 77.5%.

Among the 31 participants, 7 (22.6%) were males and 24 (77.4%) were females. Majority of them (51.6%) were in the age of 31 – 40 years old. This also supports that majority of them have 6 – 10 years of teaching experience. In terms of the area of specialisation, the participants were found to be 6 (19.4%) of computer science, 19 (61.3%) of mathematics, and 6 (19.4%) of statistics. The demographic representation of lecturers is depicted in Table 1.

Table 1: Demographic profile of the participants (n=31)

Variable		Frequency	Percentage
Gender	Male	7	22.6%
	Female	24	77.4%
Age	Below 30 years old	6	19.4%
	31 - 40 years old	16	51.6%
	41 - 50 years old	5	16.1%
	51 years old and above	4	12.9%
Years of Teaching Experience	5 years and below	6	19.4%
	6 - 10 years	16	51.6%
	11 years and above	9	29.0%
Area of Specialisation	Computer Science	6	19.4%
	Mathematics	19	61.3%
	Statistics	6	19.4%

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Among the 31 participants, 20 (64.5%) participants who claimed that they have had some experience of conducting online assessments within their courses. The distribution of the participants regarding the experience of conducting online assessment is shown in Figure 5.

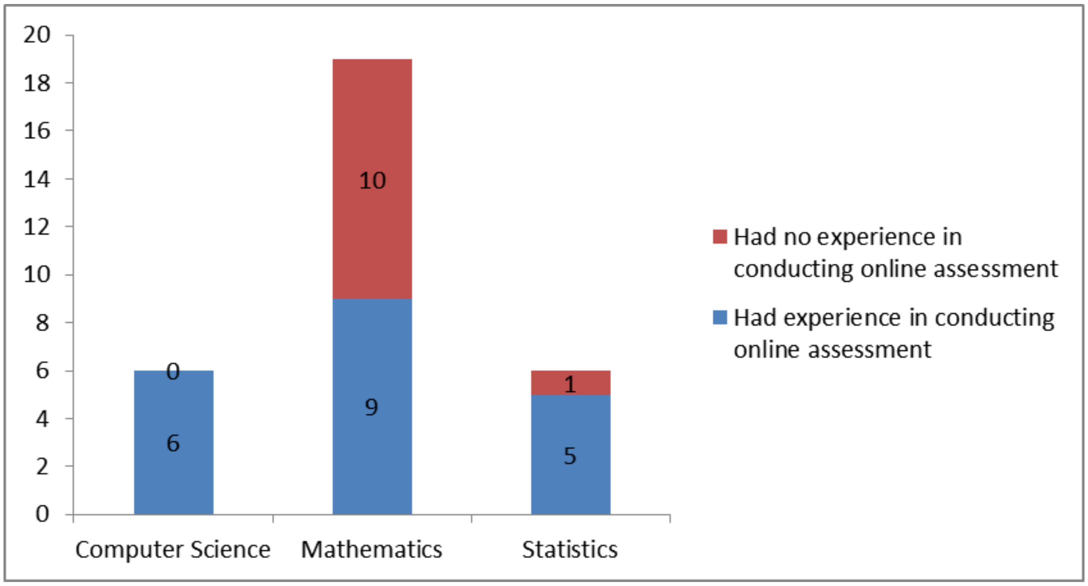


Figure 5: The distribution of participants based on their experience of conducting online assessment

Nine from mathematics and five from statistics had conducted online assessment. Based on this result, it shows that all the computer science lecturers had the experience conducting online assessments. It is interesting to find that almost 50% of the mathematics lecturers and one statistics lecturer did not attempt to conduct any forms of online assessment in their courses (See Table 2).

Table 2: The distribution of participants based on their experience of conducting online assessment

	Had experience in conducting online assessment		Had no experience in conducting online assessment		
Area of Specialisation	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Total number of participants**
Computer Science	6	100%	0	0%	6
Mathematics	9	47%	10	53%	19
Statistics	5	83%	1	17%	6

3.2 Lecturers' Perceptions towards Conducting Online Assessment using i-Learn

This section provides the results of the analyses on lecturers' perceptions of online assessment in 7 dimensions, i.e. affective factors, validity, practicality, reliability and fairness, security, pedagogy, and the intention to use.

3.2.1 Lecturers' rating score on affective factors

Affective factors relate to any effects on student's feelings when they are taking an online assessment (Dermo, 2009) from the perspective of lecturer. There were four items included in the survey assessing the lecturers' opinions on this matter. Table 3 depicts the findings.

Table 3: Perceptions on affective factors (N=31)

Item	Disagree	Neither agree nor disagree	Agree	Mean	S.D
My students have stress when answering online test/quiz.	25.8%	29.0%	45.2%	4.13	1.628
My students would feel more comfortable if the test or quiz is on paper, not online.	9.7%	12.9%	77.4%	5.52	1.387
My students will find it hard to concentrate on the questions when answering online test or quiz.	32.3%	9.7%	58.1%	4.65	1.723
My students prefer answering test/quiz on computer than on paper, because they are used to working online.	45.2%	35.5%	19.4%	3.55	1.234

Note: Scale (1) to (3) were merged to "Disagree". Scale (4) is classified as "Neither agree nor disagree". Scale (5) to (7) were merged to "Agree".

Although we know that our students are used to work or play online, but based on Table 3, it is interesting to see that 45.2% of the lecturers perceived that their students do not like to do online assessment. Majority of them thought that the students prefer to do paper-based test or quiz. Perhaps, one of the reasons to support this fact is because they think that their students are stressful when answering online test or quizzes. Furthermore, they also worried that the students hardly to concentrate if the questions are posted online and this might affect the students' grades. We didn't know whether this group of lecturers has given the students a choice whether they want to do online assessment or paper-based assessment.

Based on the result of One-Way ANOVA analysis as shown in Table 9, the test statistic $F_{2,28} = 0.440$ (p-value > 0.05), we can conclude that there is no significant difference in the perceptions on the scale of affective factors among the three groups of lecturers based on their area of specialisation (i.e., computer science, mathematics, and statistics).

3.2.2 Lecturers' rating score on validity scale

Validity in this study is defined as the appropriateness of online assessment to measure the course outcomes (Dermo, 2009) from the perspective of lecturer. As shown in Table 4, we found that 67.7% of the lecturers agreed that students can easily score a good grade through guessing in online assessment. This is supported with the finding that 80.6% of the lecturers perceived that online assessment can only be used to test knowledge level which is the lowest cognitive level listed in Bloom taxonomy. Therefore it is a challenge to use online assessment for mathematical sciences and computer science courses which involving more complex problem solving types of questions.

The result indicates that quite a high percentage (74.2%) disagreement that online assessment is appropriate for computer and mathematical sciences related courses. Perhaps this is due to the nature of the subjects where the students are required to perform mathematical proofs, graphing, image drawing, data analysis, write programming codes etc. Or maybe the workings to solve a problem can be very lengthy, or too many mathematical symbols, superscripts, subscripts, and Greek letters are involved, which are not easy to handle if the test is conducted online. Therefore, a special feature to create mathematical expressions is a very important feature if the use of the online testing system for this group of lecturers is to be promoted. Figure 6 depicts a list of special characters is made available in the i-Learn portal. Generally, it is found that the list is too limited and it cannot support the flexible usage in the design of computer and mathematical sciences test items.

Table 4: Perceptions on validity scale (N=31)

	Disagree	Neither agree nor disagree	Agree	Mean	S.D
In many online test or quiz questions it is possible for my students to get a correct answer by guessing.	19.4%	12.9%	67.7%	4.65	1.355
Online assessment is appropriate for all my courses.	74.2%	12.9%	12.9%	2.81	1.195
All my courses are too	19.4%	19.4%	61.3%	4.87	1.668

eISSN 2600-8564

complex to be dealt with by online multiple choice questions.					
Online test or quiz can be used to test knowledge of the subject.	3.2%	16.1%	80.6%	5.48	1.151

Note: Scale (1) to (3) were merged to “Disagree”. Scale (4) is classified as “Neither agree nor disagree”. Scale (5) to (7) were merged to “Agree”.

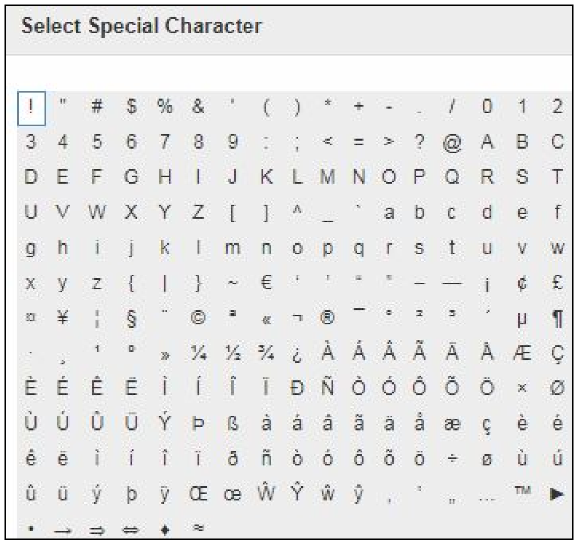


Figure 6: A screen-shot of a list of special character provided in i-Learn portal

Based on the One-Way ANOVA analysis output as shown in Table 9, it indicates that there is no significant difference in opinions on the validity scale among the three groups of lecturers since the test statistic $F_{2,28}$ =2.089 (p-value > 0.05).

3.2.3 Lecturers’ rating score on practicality scale

The practicality of conducting online assessment is an important issue to be considered if online assessment is to be enforced as a compulsory assessment in the higher education level. As shown in Table 5, the lecturers were having positive perceptions on the time issue allocated for online assessment was sufficient and they also concerned about the paper usage issue. But the result of this study found that quite a large percentage (74.2%) of the lecturers perceived that technical problems hinder them from conducting online assessment. Perhaps, it is due to many factors such as the system, server, skill, knowledge, or nature of the subject itself.

Table 5: Perceptions on practicality scale (N=31)

	Disagree	Neither agree nor disagree	Agree	Mean	S.D
There are serious health and safety issues with online tests or quizzes	35.5%	16.1%	48.4%	4.10	1.739
Online assessments use less paper, which is important to me.	16.1%	32.3%	51.6%	4.71	1.419
Technical problems make online tests/ quizzes impractical	16.1%	9.7%	74.2%	5.26	1.673
Online tests or quizzes are more accessible than paper-based tests.	19.4%	35.5%	45.2%	4.35	1.380
I expect the time allocated for the online test or quiz is sufficient.	3.2%	19.4%	77.4%	5.06	0.892

Note: Scale (1) to (3) were merged to "Disagree". Scale (4) is classified as "Neither agree nor disagree". Scale (5) to (7) were merged to "Agree".

The output of One-Way ANOVA analysis as shown in Table 9 suggests that there is no significant difference in opinions on the validity scale among the three groups of lecturers since the test statistic $F_{2,28}$ =0.666 (p-value > 0.05).

3.2.4 Lecturers' rating score on reliability and fairness scale

In the context of this study, a system named as i-Learn is an official system used in Universiti Teknology MARA to support blended learning as well as online assessment. All the lecturers and the students registered are able to assess the system with a personal login name and password. In comparison with the paper-based assessment, the reliability and fairness of online assessment is being investigated in this study. Four items are listed under this dimension and the results are shown in Table 6. There are 32.3% of the lecturers who disagreed that the system provided by the university is unreliable. It is interesting to find that a majority (58.1%) of the lecturers chose to be neither agree nor disagree that the system is unreliable. In terms of fairness, 51.6% of the lecturers perceived that paper-based tests or quizzes are fairer than online assessment.

Table 6: Perceptions on reliability and fairness scale (N=31)

	Disagree	Neither agree nor disagree	Agree	Mean	S.D
Grading is more accurate, because computers don't suffer from human error.	29.0%	19.4%	51.6%	4.65	1.624
The system (e.g. i-Learn) used in online assessments is unreliable.	32.3%	58.1%	9.7%	3.42	1.232
Online assessments favour some students more than others.	35.5%	38.7%	25.8%	3.65	1.404
Paper-based tests or quizzes are fairer than online tests/quizzes.	19.4%	29.0%	51.6%	4.65	1.473

Note: Scale (1) to (3) were merged to "Disagree". Scale (4) is classified as "Neither agree nor disagree". Scale (5) to (7) were merged to "Agree".

Based on the output of One-Way ANOVA analysis as shown in Table 9, it shows that there is no significant difference in opinions on the reliability and fairness scale among the three groups of lecturers since the test statistic $F_{2,28}$ =0.616 (p-value > 0.05).

3.2.5 Lecturers' rating score on security scale

The security is an important issue to be considered for any assessments. Five items have been included in the survey and the results are shown in Table 7. Only one third of the lecturers (32.3%) are confident that their students' grades for online assessment are secured. On the other hand, more than half of the lecturers (61.3%) have the perception that it is easy for their students to cheat on online assessment as compared to paper-based assessment. Cheating is considered as academic dishonesty behavior among students. Even in classroom paper-based assessment, students are caught for cheating such as copying from books, and from friends. Educators are alerted about this issue and try to reduce it from occurrence. In Grijalva, et al. (2006) study, it was found that approximately 3% of undergraduate students had cheated in their study, and that there was no significant difference between cheating on paper-based tests and online assessments. On the other hand, Lanier (2006) found that students cheating in online courses was significantly higher than that done in regular classroom. However, Stuber-McEwen et. al. (2009) had a conflicting result, whereby it was found that students cheated less in e-learning courses. In a different study, it has been reported that the students have admitted that they were more than 4 times as likely as to cheat in an online class compared to face-to-face classes (Watson & Sottile, 2010). Therefore, it is still a challenge for the lecturers to conduct online assessment.

Table 7: Perceptions on security scale (N=31)

	Disagree	Neither agree nor disagree	Agree	Mean	S.D
Online assessment is just as secure as paper-based assessment	32.3%	41.9%	25.8%	3.87	1.231
I am confident that my students' grades for online assessments are secured.	12.9%	54.8%	32.3%	4.35	1.226
It is easier to cheat on online tests/ quizzes than with paper-based tests or quizzes.	16.1%	22.6%	61.3%	4.90	1.491
The online assessment system (e.g. iLearn) is vulnerable to hackers.	12.9%	38.7%	48.4%	4.39	1.256
Username and password used in online assessment login system provide adequate security.	12.9%	35.5%	51.6%	4.58	1.455

Note: Scale (1) to (3) were merged to "Disagree". Scale (4) is classified as "Neither agree nor disagree". Scale (5) to (7) were merged to "Agree".

Based on the result of One-Way ANOVA analysis as shown in Table 9, the test statistic $F_{2,28} = 0.305$ (p-value > 0.05), we can conclude that there is no significant difference in the perceptions on the scale of security among the three groups of lecturers.

3.2.6 Lecturers' rating score on pedagogy scale

Pedagogy in this study is referred to whether online assessment has any effects on student's learning, either having positive or negative effects. Three items were used to evaluate this dimension as listed in Table 8. Majority of the lecturers (58.1%) agreed that online test or quiz questions are mostly about memorizing the content being assessed. But on the other hand, 61.3% of the lecturers revealed that they like online assessment because the students can obtain the score immediately. There are 38.7% of the lecturers who disagreed that online assessment has more functions than paper-based tests. These results show that positively online assessment in education is more centered on the immediate feedback that the system can provide.

The above findings supported the claim saying that many academic staff tend to associate the online assessment with automated multiple-choice questions, possibly because it was one of the earliest uses of computer technologies. Actually, online assessment does not only automate routine tasks like marking multiple-choice

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

questions, but also can enrich student's learning experiences (Brown, Race, & Bull, 1999; Baleni, 2015).

Table 8: Perceptions on pedagogy scale (N=31)

	Disagree	Neither agree nor disagree	Agree	Mean	S.D
The online test/quiz questions are mostly about memorizing the content being assessed.	19.4%	22.6%	58.1%	4.58	1.566
I like online test/quiz because my students can obtain the score immediately.	22.6%	16.1%	61.3%	4.77	1.543
Online assessment has more functions than paper-based tests.	38.7%	32.3%	29.0%	3.87	1.500

Note: Scale (1) to (3) were merged to "Disagree". Scale (4) is classified as "Neither agree nor disagree". Scale (5) to (7) were merged to "Agree".

Based on the result of One-Way ANOVA analysis as shown in Table 9, the test statistic $F_{2,28} = 0.070$ (p-value > 0.05), we can conclude that there is no significant difference in the perceptions on the scale of pedagogy among the three groups of lecturers.

Table 9: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Overall Perceptions	Between Groups	323.390	2	161.695	.455	.639
	Within Groups	9941.965	28	355.070		
	Total	10265.355	30			
Affective factors	Between Groups	.549	2	.274	.440	.648
	Within Groups	17.435	28	.623		
	Total	17.984	30			
validity	Between Groups	2.180	2	1.090	2.089	.143
	Within Groups	14.614	28	.522		
	Total	16.795	30			
practicality	Between Groups	.789	2	.394	.666	.522
	Within Groups	16.591	28	.593		
	Total	17.380	30			
reliability and fairness	Between Groups	.887	2	.443	.616	.547
	Within Groups	20.162	28	.720		
	Total	21.048	30			
security	Between Groups	.383	2	.191	.305	.740
	Within Groups	17.591	28	.628		
	Total	17.974	30			
pedagogy	Between Groups	.148	2	.074	.070	.933
	Within Groups	29.630	28	1.058		
	Total	29.778	30			

3.2.7 Lecturers' intention to conduct online assessment

The final section in this survey is regarding the lecturer's intention to use the online assessment in their courses in the near future. Table 10 reveals that there are only 29% of the lecturers who agreed that they shall continue or have the intention to conduct online assessment in their courses. However, there are also another 29% of lecturers who neither agreeing nor disagreeing that they will use online assessment in their courses. Maybe with more training or exposure on online assessment to the lecturers, the benefits and advantages of online assessment could be introduced to the lecturers and hopefully the acceptance of online assessment is increased.

Table 10: Lecturers' intentions to use online assessment (N=31)

	Disagree	**Neither agree nor disagree**	**Agree**	**Mean**	**S.D**
I intend to use more often online tests/ quizzes in all my courses.	41.9%	29.0%	29.0%	3.61	1.407
If online assessment is not mandatory in my university, I would still use it.	32.3%	25.8%	41.9%	4.06	1.569

Note: Scale (1) to (3) were merged to "Disagree". Scale (4) is classified as "Neither agree nor disagree". Scale (5) to (7) were merged to "Agree".

Results of the ANOVA as shown in Table 11, showed that the test statistic $F_{2,28} = 0.712$ (p-value > 0.05), we can conclude that there is no significant difference in the intention to conduct online assessment among the three groups of lecturers.

Table 11: ANOVA

intention to use

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.696	2	1.348	.712	.499
Within Groups	52.998	28	1.893		
Total	55.694	30			

4. Conclusions

In the current learning environment, the academicians have to change their mindset because they are no longer practising traditional delivery method of the university education. According to McLoughlin and Luca (2006), traditional university education has often operated within a "transmissive paradigm", which is just emphasizing the transfer of knowledge from lecturer to student. Therefore, the appropriate assessment practices for this type of education would focus on students' capacity to recall information and facts during examination. The dependency on the traditional assessment method is that it is no longer suits the needs of 21st century education where our future students and their learning styles are totally different from current days (Jerald, 2009). In order to cater the needs for 21st century, our education should be constructive, active learning where students take a pro-active role in questioning, sharing ideas and applying prior knowledge to new ideas. In such a case, the traditional university assessment may not test for deep conceptual understanding (Anderson &

Krathwohl, 2001). Therefore, the researchers would like to suggest the training for professional development to find ways to change the academicians' mindset.

With the inclusion of ICTs in assessment, we believed that our assessment model requires lecturers to be re-considered and rethought, modified or changed as opposed to the traditional testing models. Based on past literature, it has been justified that the online assessment tools are widely accepted by educators because the tools are able to reduce the burden of educators and facilitate them to conduct assessments purposefully. In addition, technology-based assessments can be ultilized to promote better learning because it can be used to test a variety of skills, knowledge and understanding which paper-based assessment may not be able to test (Brown, Race, & Bull, 1999). On the other hand, McLoughlin and Luca (2006) have presented some interesting ways on how the ICT can be utilized to support authentic assessment.

Some interesting findings emerged from this study. It was found that lecturers seem to have some positive perceptions toward the use of online assessment but in terms of the intention to conduct online assessment is not high. From this study, we can classify the factors into two main perspectives that hindered the adoption, i.e., student perspective and the subject course perspective. In the opinion of the lecturers from the student's perspective, they view that their students would prefer paper-based test than online test. They also think that their students are having more stress if they are to take up online test. From the subject course perspective, the lecturers view that it is not suitable due to technical issues as for them the paper-based test is fairer, because they can control their students from cheating during the test. In addition, they also think that the type of question items to be posted online is considered of the lower level of thinking skill, which can only be used to test knowledge level or memory recall type items.

Acknowledgments

The authors wished to acknowledge all the lecturers of Department of Computer and Mathematical Sciences, UiTM Pulau Pinang, who took part in the survey. Also the colleagues who were involved in the proof readings and editing of the paper are highly appreciated.

References

Adora Endut, Posiah Mohd Isa, Siti Rahayu Abdul Aziz, Mohd Nor Hajar Hasrol Jono, Azlan Abdul Aziz. (2012). e-Learning for Universiti Teknologi MARA Malaysia (UiTM): Campus Wide Implementation and Accomplishments. Procedia - Social and Behavioral Sciences, 67: 26-35.

Anderson, L. & Krathwohl, D. (2001). A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives. New York: Longman.

Baleni, Z. G. (2015). Online formative assessment in higher education: Its pros and cons. Electronic Journal of e-Learning, 13(4): 228-236.

Brown, S; Race, P., & Bull, J. (1999). Computer Assisted Learning in Higher Education, London: Kogan Page.

Broughton, S. J., Robinson, C. I., & Hernandez-Martinez, P. (2013). Lecturers' perspectives on the use of a mathematical-based computer-aided assessment system. Teaching Mathematics and Its Applications, 32: 1-8.

Dermo, J. (2009). e-Assessment and the student learning experience: A survey of student perceptions of e-assessments. British Journal of Educational Technology, 40(2): 203-214.

Durán, R. P. (2000). Implications of Electronic Technology for the NAEP Assessment. Commissioned by the NAEP Validity Studies (NVS) Panel. CA: American Institutes for Research.

Fageeh, A. I. (2015). EFL student and faculty perceptions of and attitudes towards online testing in the medium of Blackboard: Promises and challenges. JALTCALL Journal, 11(1): 41–62.

George, D., & Mallery, P. (2003). SPSS for window step by step: A simple guide and reference. 11.0 update, 4th ed. Boston: Allyn & Bacon.

Grijalva, T., Nowell, C., & Kerkvliet, J. (2006). Academic honesty and online courses. College Student Journal, 40(1): 180-185.

Jerald, C. D. (2009). Defining a 21st century education.The Center for the Public Education. [Online] Available at: https://www.semanticscholar.org/paper/Defining-a-21st-century-education-Jerald/0252e811a5dee8948eb052a1281bbc3486087503/pdf

Lanier, M. (2006). Academic integrity and distance learning. Journal of Criminal Justice Education, 17(2): 244-261.

McLoughlin, C. & Luca, J. (2006). Best practice in online assessment: Principles, processes and outcomes. In E. Pearson & P. Bohman (Eds.), Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications, Chesapeake, VA: AACE: 2375-2382

Özen, M. Y., Ertürk, I., & Sanli, S. (2004). Students' perceptions of online assessment: A case study. Journal of Distance Education, 19(2): 77-92.

Prisacari, A. A., & Danielson, J. (2017). Rethinking testing mode: Should I offer my next chemistry test on paper or computer? Computers & Education, 106(2017): 1-12

Sekaran, U. (2003). Research Methods for Business: A Skill Building Approach, 4th ed., New York: John Wiley & Sons.

Sorensen, E. (2013). Implementation and student perceptions of e-assessment in a Chemical Engineering module, European Journal of Engineering Education, 38(2): 173-185.

Stuber-McEwen, D., Wiseley, P., & Hoggatt, S. (2009). Point, click, and cheat: Frequency and type of academic dishonesty in the virtual classroom. Online Journal of Distance Learning Administration, 12(3): 1-10.

Watson G. & Sottile, J. (2010). Cheating in the digital age: Do students cheat more in online courses? Online Journal of Distance Learning Administration, 13(1). [Online] Available at: http://www.westga.edu/~distance/ojdla/spring131/watson131.html

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Benefits of New Driver Training Curriculum (KPP) Implementation As A Means for Road User Awareness

Siti Faizzatul Aini Misyan[1], Muhammad Izwan Badrillah[2], Mohd Hafiz Zulfakar[3 *] and Tengku Nurul Aishah Tengku Aziz[4]

[1]Research Assistant, Center for Technology and Supply Chain Management Studies, Faculty of Business and Management, MARA University of Technology (UiTM) Selangor Branch, Puncak Alam Campus, Bandar Puncak Alam, Selangor, Malaysia
sitifaizzatulaini@yahoo.com

[2]Lecturer, Center for Technology and Supply Chain Management Studies, Faculty of Business and Management, MARA University of Technology (UiTM) Selangor Branch, Puncak Alam Campus, Bandar Puncak Alam, Selangor, Malaysia
badrillahizwan@salam.uitm.edu.my

[3 *]Senior Lecturer, Center for Technology and Supply Chain Management Studies, Faculty of Business and Management, MARA University of Technology (UiTM) Selangor Branch, Puncak Alam Campus, Bandar Puncak Alam, Selangor, Malaysia
mohdhafiz@salam.uitm.edu.my

[4]Lecturer, Center for Technology and Supply Chain Management Studies, Faculty of Business and Management, MARA University of Technology (UiTM) Selangor Branch, Puncak Alam Campus, Bandar Puncak Alam, Selangor, Malaysia
tengkunurul@salam.uitm.edu.my

Abstract

This study is conducted to investigate the benefits of new Driver Training Curriculum (KPP) implementation as a means for road user awareness. In Malaysia, the issue of traffic accidents has become a serious social problem. Apart from that, governments and private sectors spend huge resources on road safety programmes, with the target of achieving zero fatality and reducing injury. Due to this case, the Government has launched a new KPP in 2014 and implemented in 2015. This programme aimed to improve the driver's knowledge and stricter license approval. The previous KPP equipped drivers with only cognitive and psychomotor skills with less emphasis on affective skills while the current KPP was developed to produce more courteous and disciplined drivers. This study is conducted in Muar area. In this study also, the researchers used questionnaire as the method of collecting data and information. A total of 150 were sampled for the study drawn from old and new KPP group. Since this programme has just been implemented by Road Transport Department (RTD), this study opens up many new research opportunities in the future.

Keywords: Driver Training Curriculum, Road Safety, Road Awareness, Muar, Road Transport Department.

1. Introduction

Road accidents have been and will continue to be one of the greatest health hazards. Every year, the number of road fatalities is increasing steadily, and this has caused a lot of concern to the government and the Malaysian people generally. The total number of deaths and injuries resulting from road accidents in Malaysia is very worrying. Due to this case, government have heightened the need for effective driver education program and stricter license approval. A lot of effort has already been done by government in order to reduce the problem of road accident. The lack awareness of road user is one of the issues that need to be concerned.

The new Driver Training Curriculum (Kurikulum Pendidikan Pemandu - KPP) focus on producing courteous and disciplined drivers compared to previous KPP which is dexterity and traffic rule comprehension. Historically, Road Transport Department (Jabatan Pengangkutan Jalan - JPJ) has introduced a lot of new initiatives to enhance the robustness and effectiveness of driver education and licensing in Malaysia. Among the initiatives are the Computerized Testing System introduced in 1996 to replace the written test, improvements through legal methods and the introduction of textbooks for Kurikulum Pendidikan Pemandu (KPP) in 2000 to replace the old KPP which is Kurikulum Baru Sekolah Memandu (KBSM). Then, in 2007, JPJ initiated a program which ultimately aimed at implementing a new KPP to improve the driver's education and licensing in Malaysia. This initiative was in line with the road safety plan developed specifically by the government under the 9th Malaysia Plan for a comprehensive and balanced set of planning in the implementation of road safety initiatives based on the concept of 4E which are Engineering, Education, Enforcement and Environment.

According to Seksyen 26(1) Akta Pengangkutan Jalan 1987, an individual who wants to drive a car or ride a motorcycle must have a license. An individual can be charged with an offence if they drives or rides the motor vehicle without a license as it is against the law. Driver training programs plays an important role in developing basic car control skills and imparting road law knowledge. It also helps to reduce casualty accident risk involvement.

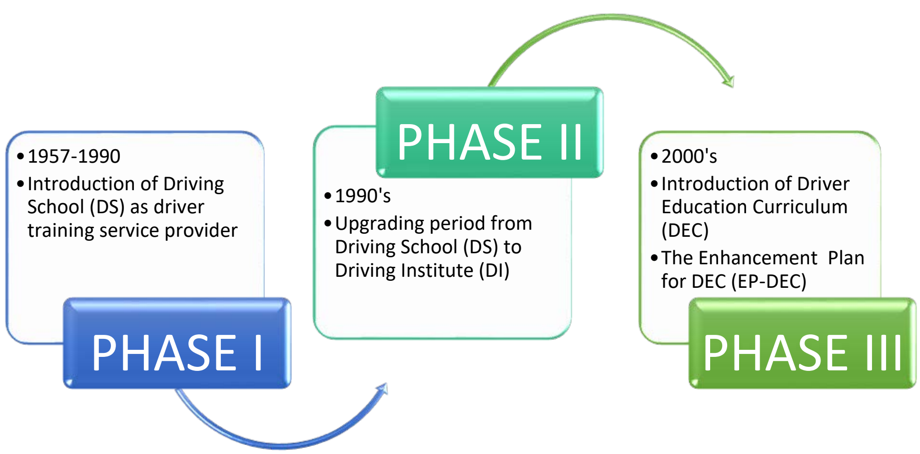


Figure 1:
The Evolution of Driver Training in Malaysia

To obtain driver's license nowadays has become more complex and costly than before. The cost of getting a driver's license has entwined with many different issues recently. The new format proposed by Road Transport Department (JPJ) is intended to improve the safety of the road user. Previous studies (Bates, Filtness & Watson, 2018; Masten, Foss & Marshall, 2011; Foss, 2007) suggested that new drivers should obtain as much practical experience as possible driving in realistic conditions in order to reduce crash rates. However, the implementation of this format has not been discovered holistically as the new format still receives many complaints from customers in term of high cost and longer duration. As such, previous studies had shown lack of knowledge and experience in driving a motor vehicle influenced the safety of people. Experienced drivers were equally proficient at hazard detection and detect potential hazardous events (Poirier, Blais & Faubert, 2018; Borowsky, Oron-Gilad, Meir & Parmet, 2012). The differences between the old syllabus and the improved curriculum requires longer teaching hours and lower ratio of students to instructor, theory workshops in the old syllabus are replaced with more hours in the driving circuit, the driver's curriculum module for vehicles are separated. Also, the computer test for car and motorcycle are separated. The improvement proposed by JPJ is to ensure the safety of the public.

The main objective of this research is to determine the most influential factor of improved driver training curriculum implementation as a means for road user awareness. In addition, the study also looks at the benefits of this new training curriculum.

2. Literature Review

2.1 Road User Awareness

According to Bates, Filtness & Watson (2018) awareness of the driver is important in preventing accidents. Road safety is a safety measure to reduce the risk of road accidents and road side injury because of the mistakes of people while driving on the public road. There are many cases of death daily because of the driving mistakes and lack of road traffic rules followers. Every person who going on the road has risk of injury or death such as pedestrians, motorists, cyclists and passengers. There are many ideas that are created to ensure a safe and pleasurable driving experience which are avoiding aggressive drivers, alertness while driving, and vehicle following distance and vehicle speed.

Miles & Johnson (2003) stated that one of many factors in remaining safe on the roads is the ability to control emotions and stress. This emotion can hinder the ability to drive safely and ensure safety on the roads. On top of that, aggressive driving behaviors are extremely problematic in Malaysia, as well as in many other countries. According to Miles & Johnson (2003) aggressive driving refers to the unsafe operation of a motor vehicle in a hostile manner, without regard for the safety of other users of the road. Aggressive driving includes frequent or unsafe lane changes, failing to signal, tailgating, failing to yield right of way, and disregarding traffic controls.

Several studies (Poirier et al., 2018; Bates, Darvell & Watson, 2015;Palarma et al., 2012) said that young drivers are more likely to speed, not use seat belts, drive while distracted or fatigued, drive after drinking, and drive without an appropriate license and that the young people who engage in these risky driving behaviors. Due to lack of awareness among young drivers, it will cause the greater risk of being killed in a collision per distance traveled than any other group because of their risky driving. In fact, young drivers are more likely to be involved in fatal and injury collision compared to older drivers. As such, previous studies had shown young drivers are more likely than older drivers to be involved in speed related fatal and injury collision.

2.2 The New Drive Training Curriculum (KPP)

The old Driver Training Curriculum (KPP) equips drivers with only cognitive and psychomotor skills with less emphasis on effective skills while for new curriculum was developed to produce more courteous and disciplined drivers. The new curriculum was launched by government in 2014 but it has only been implemented in 2015. There are few improvement and added values that introduced by Road Transport Department (JPJ) in the new KPP implementation as compared to the previous KPP which are:

1) Improvement based on Gap Analysis and Learning Outcomes Approach

Driving Curriculum Improvement Committee was formed to study the weaknesses of prior driver's education program in Malaysia and formulate improvement plans. The workshops conducted by the committee, a gap analysis was conducted to assess the gaps existed in the current curriculum towards producing safer drivers. As a result, a new training module based on the learning outcomes was introduced to strengthen the existing contents of the training module. Taxonomy of learning Effects of New Driver Training Curriculum (KPP) on Novice Drivers' Hazard Perception Skills 4 matrix containing the input and learning outcomes have also been produced along with the targeted driving characteristics namely:

a) Improved knowledge in overall safe driving (Cognitive Domain)
b) Improved competency in hazard perception and responding (Psychomotor Domain)
c) Overall improvement in building the culture of safe driving (Affective Domain)

In the new KPP, a new approach based on learning outcomes is a crucial element than old module. The old module was prescriptive and process-based and focused heavily on the input without having a specific module to evaluate the performance of novice drivers based on the content of the curriculum. This module has also taken into account the different levels of learning ability of the novice drivers which are translated into the Bloom's taxonomy of learning. In addition, a special module for the exit and testing process was also updated, streamlined and given special concerntration through the production of specific manuals for instructors and testers.

2) New and separate module to address skills improvement for Learner Motorcyclists

The new KPP in terms of learning, training and testing module are separated from the car driver's module. The enhancement for motorcycle license is the increasing coverage and focus on defensive driving and safe riding in risky traffic situations and environments. Particular skills being emphasized are detecting and responding to possible hazards on the roads.

3) Massive Revamp of National Program for New Drivers' Licensure

The new KPP is part of a massive revamp of nation's program for new drivers' licensure, which involves enhancement in standards of training delivery and testing.

4) Improvement in the module for theory classes

The syllabus for theory class is improvised to six chapters compared to previous which is seven chapters. This is to teach them the defensive driving skills with 6 hours of lectures added to the previous teaching requirement. This improvement was expected to give a significant impact on the improvement of hazard perception and overall safe driving performances.

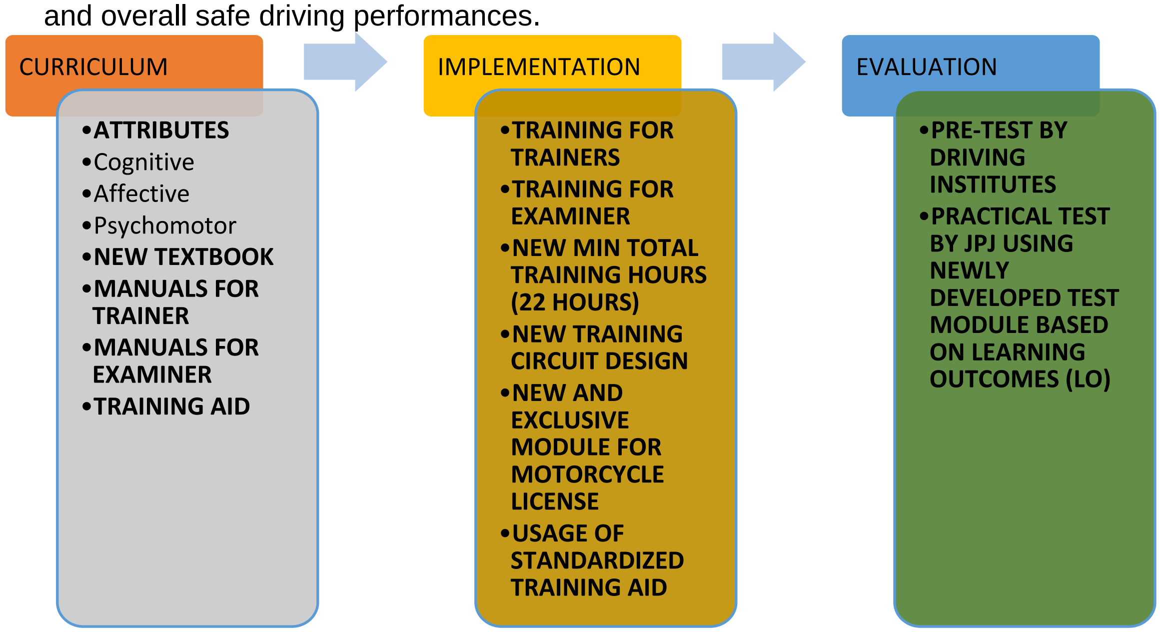


Figure 2:
Summary the new Drivers Education Curriculum (KPP) and Licensing program structure

3. The Study

The present study was conducted in Muar district, Johor. The purpose of this study is to ascertain the benefits of new driver training curriculum implementation as a means for road user awareness. The information was gathered to study more regarding the variables and also to understand better about the new syllabus proposed by Road Transport Department (JPJ). 150 questionnaires were collected in this study. The sample were chosen through purposive sample random sampling, where the targeted respondents are those who are taking driver's license course at driving school around Muar District.

4. Findings

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

4.1 Demographic Profile

Table 1 summarised the demographic profiles of the respondents participated in this study.

Demographic Part	Item (s)	Frequency	Percentage (%)
Gender	Male	74	49.3
	Female	76	50.7
	Total	150	100.0
Age	16-18	27	18.0
	19-21	27	18.0
	22-24	40	26.7
	25 and above	56	37.3
	Total	150	100.0
Race	Chinese	37	24.7
	Indian	8	5.3
	Malay	105	70.0
	Total	150	100.0
Education Level	Degree	39	26.0
	Diploma	50	33.3
	High School	50	33.3
	Others	11	7.3
	Total	150	100.0
Classes of Driving License	B	3	2.0
	B/D	9	6.0
	B2	13	8.7
	B2/D	69	46.0
	D	56	37.3
	Total	150	100.0
Who Taught You To Drive	Family Member	10	6.7
	Friend	5	3.3
	Qualified Instructor	135	90.0
	Total	150	100.0
Do You Mostly Drive In	Both U/R	116	77.3
	Rural	17	11.3
	Urban	17	11.3
	Total	150	100.0
Experience of Driving	Less Than 2	62	41.3
	More Than 2	88	58.7
	Total	150	100.0

Table 1:
Overall view on Respondents' Demographic Profile

4.2 Descriptive Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
Fatal Accident	150	1.25	5.00	4.3617	.66399
Driving Skills	150	1.0	5.0	3.987	.6540
Knowledge	150	1.0	5.0	4.155	.6800
Road User Awareness	150	1.00	5.00	4.4483	.65301
Valid N (Listwise)	150				

Table 2:
Descriptive Analysis

Based on the table above, it shows the descriptive data for the overall variables for the fatal accident, driving skills and knowledge. It can be seen for fatal accident the mean is 4.3617 which interpret that from 150 respondents with answering the scale of 1- Strongly disagree, 2- Disagree, 3- Neutral, 4- Agree, and 5- Strongly Agree indicates that people answers the average of 4.3617 which is between agree and strongly agree scale with the standard deviation 0.664. As for driving skills, the mean for the variable is 3.987 which interpret that people answer the scale between neutral and strongly agree with the standard deviation of 0.654. The knowledge show the mean 4.155 which interpret that respondent answer the scale between neutral and strongly agree with the standard deviation of 0.68. Finally, the last variable is road user awareness that has a mean of 4.4483 and standard deviation is 0.653 at the same time show that people most answer the scale between agree and strongly agree.

4.3 Reliability Analysis

According to the Tavakol & Dennick (2011), Cronbach's Alpha test is the most common used test to determine the reliable of the question in the questionnaire of the study. Based on Sekaran and Bougie (2016), reliability test is conducted to test the consistency and stability of items. In the reliability test, Cronbach's alpha is used to indicate how well the items in a set are positively correlated to each other. The closer the Cronbach's alpha is to 1, the higher the internal consistency reliability.

Variable	Cronbach's Alpha Based on Standardized Items	No. of Item

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Fatal Accident	.848	4
Driving Skills	.854	5
Knowledge	.916	5
Road User Awareness	.841	4

Table 3:
Reliability Analysis

Table 3 shows Cronbach's alpha value of variables. Cronbach's alpha value for fatal accident with 4 items is 0.848 in which according to Sekaran & Bougie (2016), it is good since it is more than 0.80. Next for the Cronbach's alpha value for the driving skills with 5 items is 0.854 in which according to Sekaran & Bougie (2016), it is also good since it is more than 0.80. The value for the Cronbach's alpha of quality of knowledge with 5 items is 0.916 in which according to Sekaran & Bougie (2016), it considered good since it is more than 0.80. Last but not least, for the frequency of road user awareness cronbach's alpha value with 4 items is 0.841 in which according to the Sekaran & Bougie (2016), reliabilities more than 0.80 are indicates good reliability. Therefore, the reliability for all variables was very high and those items tested were very good. This shows that all the variable is positively correlated to each other.

4.4 Correlation Analysis

Correlation is used to look at the net strength relationship between two continuous variables (Sweet and Martin, 2008). A correlation coefficient shows the direction, strength, and significance of the bivariate relationship among all the variable that were measure at an interval or ratio level. There could be a perfect positive correlation between two variables, represented by 1.0 (plus 1) or a perfect negative correlation, which would be -1.0 (minus 1). Hence, it does not tell which variable causes which but it tells that the two variable are associated with each other.

	Road User Awareness	**Fatal Accident**	**Driving Skills**	**Knowledge**
Road User Awareness	1			
Fatal Accident	.655**	1		
Driving Skills	.628**	.470**	1	
Knowledge	.652**	.516**	.754**	1

Table 4:
Correlation Analysis

Table 4.4 above present the overall result of Person's Correlation test. The table shows the correlation between dependent variable and independent variables. Based on the result it is proven that there is positive relationship between road user awareness and fatal accident. The value of 0.655 shows the strength between road user awareness and fatal

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

accident, which means there is moderate correlation but substantial relationship. Next, between road user awareness and driving skills have a positive relationship which the value is 0.628. It also shows that the strength of relationship between these variables, there is moderate correlation but substantial relationship. The relationship between road user awareness and knowledge have a positive relationship which the value is 0.652. It also shows that the strength of relationship between these variables, there is is moderate correlation but substantial relationship. Furthermore, according to Sekaran and Bougie (2016), the correlations for those variables are significant at the 0.01 level (2-tailed).

4.5 Regression Analysis

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.705	.262		2.688	.008
Fatal accident	.401	.062	.407	6.496	.000
Driving skills	.238	.082	.239	2.919	.004
Knowledge	.252	.081	.262	3.112	.002
F value	69.307				
Sig	.000				
Adjusted R^2	.579				
R^2	.587				

Table 5:
Results of Regression Analysis (Road User Awareness)

Table 5 shows the summary of regression analysis for dependent variable which is road user awareness. R^2 indicates the percentage variance in the dependent variable that is explained by the variation in the independent variables which are fatal accident, driving skills and knowledge. The R^2 of 0.587 implies that all the independent variable explained 59% percent of the variance in the dependent variable, while 41.3% percent of the variance in the dependent variable is not explained by the independent variable in this study. This indicates that, there are other independent variable which is not included in the study and could further strengthen the regression analysis. Every 1% change in road user awareness is resulted from fatal accident, driving skills and knowledge.

The F- test is significant based on the value of 0.000. Therefore it can be concluded that the independent variables which are fatal accident, driving skills and knowledge significantly explained dependent variable that is road user awareness.The result for fatal accident variable is 0.000 (0%), which is below the 5% significant level. Therefore, fatal accident variable is significant. Hence, fatal accident is positively related with dependent variable. The variable for driving skills is significant. It is because the p-value for driving skills variable is 0.004 (0.4%), which is below the 5% significant level. Hence, driving skills is related with dependent variable. The knowledge variable is significant with a p-value of 0.002 (0.2%). Thus, shows it is below the 5% significant level. Hence, knowledge is positively related with dependent variable.

4.6 Standardized Beta Coefficients

The beta is used as a standard unit that is the same for all variables in the equation. As fatal accidents increased by one standard deviation, road user awareness increased by 0.407 of a standard deviation. As driving skills increased by one standard deviation, road user awareness increased by 0.239 of a standard deviation. As knowledge increased by one standard deviation, road user awareness increased by 0.262 of a standard deviation. Therefore, the strongest predictor in this study is fatal accident with a beta weight of 0.407. The second would be knowledge with beta weight of 0.262. The weakest variable would be driving skills with beta weight of 0.239.

5. Conclusion

The findings of this research indicate that there are many benefits of the new driver training curriculum (KPP) implementation as a means for road user awareness. This study findings congruent with findings in past studies (Poirier et al. 2018; Bates et al. 2015; Curry, Foss & Williams, 2017) There are three factors of new KPP that have been considered in this research which are fatal accident, driving skills and knowledge. Other than that, the concern of new KPP is the quality and standard of the teaching delivery, training and testing. The driver licensure needs to be improved in these three core aspects in order to ensure the safety of road user. Furthermore, Road Transport Department (JPJ) also should play an important role to oversee the level of qualities of the three core aspects as mentioned. The introduction of separated module for vehicles in the new KPP is highly recommended. This programme is to ensure the driver competency at satisfactory level.

The purpose of the study is to determine the most influential factor of new improved driver training curriculum (KPP) implementation as a means for road user awareness and to identify the benefits of improved driver training curriculum (KPP) implementation as a means for road user awareness. The current study has identified that all independent variables; fatal accident, driving skills and knowledge is significant and shows good relationship with road user awareness. It shows that the research objectives are achieved. The result for fatal accident, driving skills and knowledge variables is 0.000 (0%), 0.004 (0.4%) and 0.002 (0.2%) which are below the 5% significant level. Therefore, all these three variables are significant. Hence, fatal accident, driving skills and knowledge are positively related with dependent variable that is road user awareness. Based on the result, it is proven that there is a positive relationship between road user awareness and independent variables which are fatal accident, driving skills and knowledge, which means there is moderate correlation but substantial relationship. Since the improved KPP has just newly been implemented, the researchers believe that this research opens up many new research opportunities in the future. Future studies may be conducted in different environment settings such as conducting the research in the urban cities such as Kuala Lumpur and Georgetown as well as focusing on certain age group, for example, the 16- to 30-year-old, of which this group has been recently identified by the Malaysian government as largest age group involved in road accidents in Malaysia.

References

Bates, L. J., Filtness, A., & Watson, B., (2018). Driver Education and Licensing Programs. in Dominique Lord, Simon Washington (ed.) *Safe Mobility: Challenges, Methodology* *and Solutions (Transport and Sustainability,* Emerald Publishing Limited, 11, 13 – 36.

Bates, L., Darvell, M. J. & Watson, B., (2015). Young and unaffected by road policing strategies: using deterrence theory to explain provisional drivers' (non)compliance. *Aust. N.Z. J. Criminol*, 50 (1), 23-38.

Borwky, A., Oron-Gilad, T., Meir, A. & Parmet, Y., (2012). Drivers' Perception of Vulnerable Road Users: A Hazard Perception Approach. *Accident Analysis Prevention*, 44 (1), 160-166.

Curry, A. E., Foss, D. R. & Williams, A. F., (2017). Graduated Driver Licensing for Older Novice Drivers: Critical Analysis of the Issues. *American Journal of Preventive Medicine,* 53 (6), 923-927.

Foss, D. R. (2007). Improving graduated driver licensing systems: A Conceptual Approach and Its Implications. *Journal Of Safety Research*, 38 (2), 185-192.

Masten, S. V., Foss, D. R. & Marshall, S. W. (2011). Graduated Driver Licensing and Fatal Crashes Involving 16- to 19-Year-Old Drivers. *JAMA*, 306(10), 1098-1103.

Miles, D. E. & Johnson, G. L. (2003). Aggressive driving behaviors: are there psychological and attitudinal predictors?. *Transportation Research Part F: Traffic Psychology and Behaviour*, *6* (2), 147-161.

Poirier, B, Blais, E & Faubert, C. (2018). Graduated driver licensing and differential deterrence: The effect of license type on intentions to violate road rules. *Accident Analysis & Prevention*, 110, 62-70.

Sekaran, U. & Bougie, R. (2016). *Research methods for business: A skill building approach* (7th edition). Wiley.

Sweet, S. A. & Grace-Martin, K. A., (2012), *Data Analysis with SPSS: A First Course in Applied Statistics* (4th Edition). Pearson.

Tavakol, M. & Dennick, R., (2011). Making Sense of Chronbach's Alpha. *International Journal of Medical Education*, 2, 53-55.

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Preliminary study of Intention to Stay among the IT Employees in Klang Valley, Malaysia

Lee-Ching Kuo[1], Lee-Chen Lim[2], and Navas Naghavi[3]

[1]School of Business, Pasific University of Technology & Innovation, Kuala Lumpur, Malaysia
kellyklc@hotmail.com

[2]School of Business, Pasific University of Technology & Innovation, Kuala Lumpur, Malaysia
dr.lisa.lim@apu.edu.my

[3]School of Business, Pasific University of Technology & Innovation, Kuala Lumpur, Malaysia
dr.navaz@apu.edu.my

Abstract

The purpose of this preliminary study is to examine the effects of human resource management practices on intention to stay among the IT employees in Klang Valley, Malaysia. The IT segment is worthy of study due to its expected growth and the increase in multinational companies operating in Malaysia. Responses from 123 survey respondents revealed that human resource management practices (career development opportunity, work-life balance, and compensation) have significant positive relationships with intention to stay. Furthermore, career development opportunity is found to be the best predictor of intention to stay among the IT employees in this study. In addition to the contribution to the intention to stay literature, the implications of this study may provide human resource practitioners insight into the drivers of intention to stay that is related to human resource practices.

Keywords: Intention to stay, career development, work-life balance, compensation.

1. Introduction

Employee retention is an effort made by human resource practitioners and employers to create and maintain a conducive working environment that encourages employees to remain with the company (Bhattacharya, 2015; Al Mamun and Hasan, 2017). Retention of talented employees has become a great concern among organizations in the IT sector as the global labor market provides increased career opportunities for IT professionals who seek to satisfy their own individual demands by leaving their companies (Lumley Coetzee, Tladinyane and Ferreira, 2011). The increasing market demand for IT professionals has triggered IT organizations to implement retention strategies that focus on retaining existing employees, especially those with critical skills and experiences (Oosthuizen, Coetzee and Munro, 2016). Examples of critical skills include proficiency in programming platforms, familiarity with integrated technologies, development of data analytics on cyber security, web traffic, artificial intelligence, business intelligence and others (McCraw, 2017).

It is crucial for IT organizations to retain their employees because these IT employees are professionals who have irreplaceable specialized skills and knowledge. Furthermore, they can act as the organization's strategic advantage (Kwenin, 2013; Oosthuizen, Coetzee and Munro, 2016). If these employees choose to leave the organization, this will result in the loss of knowledge, proficiency, deterioration of company's performance, loss of profits, loss of business opportunities, and loss of customer satisfaction, all of which eventually lead to the instability of a company (Kwenin, 2013). Moreover, companies suffer both direct and indirect costs of employee turnover. Direct costs include expenditure on recruitment, selection, orientation, training and development of the new employees, while indirect costs refer to the cost of education, condensed self-confidence, the collapse of social capital, and stress on the current employees (Al Mamun and Hasan, 2017). In contrast, retaining skilled employees may increase investors' confidence, ensure the company's survival, competitive advantage, and achievement of objectives. As such, employee retention is significant in promoting the organization's long-term growth and sustaining its continued success (Kwenin, 2013).

Malaysia Digital Economy Corporation (MDEC) reported that many multinational IT companies, such as F-Secure Corporation, Avanade, and T-Systems set up their subsidiaries in Malaysia (MDEC, 2017). An increase in the number of multinational companies operating in Malaysia also increased the number of workforce employed in the IT industry. Since 2010, the IT industry demonstrated tremendous growth rate in the workforce because the industry required knowledgeable workers in order to achieve an organization's vision and needs (see Table 1). However, Van Dyk and Coetzee (2012) stated that IT employees have strong tendencies to leave their organizations. According to Aon Hewitt's Radford Trends Report (2016), high employee turnover rates were problems faced by the technology sector companies across Asia-Pacific. The country with the highest impact was India (12-month voluntary turnover rate of 13.6%), followed by Malaysia (13%). This shows that high turnover rates are a critical phenomenon that IT companies in Malaysia have to confront, forcing them to work at retaining their skilled employees. Therefore, it is imperative for IT companies in Malaysia to increase their current employees' intention to stay. However, there are limited studies on IT employees in Malaysian organizations because past research focused on manufacturing employees, restaurant employees, and nurses instead of IT employees (Ghosh, Satyawadi, Joshi and Shadman, 2013; Nasyira, Othman and Ghazali, 2014; Armstrong-Stassen, Freeman, Cameron and Rajacic, 2015; Yang, Liu, Liu and Zhang, 2015).

Previous research identified the factors affecting employees' intention to stay as the following: career development opportunity, compensation, performance evaluation, work-life balance/ flexible work practices, job satisfaction, recognition and respect, organizational commitment, perceived organizational support and perceived supervisor support, which are closely related to human resource management (HRM) practices (Ghosh, Satyawadi, Joshi and Shadman, 2013; Nasyira, Othman and Ghazali, 2014; Armstrong-Stassen, Freeman, Cameron and Rajacic, 2015; Yang, Liu, Liu and Zhang, 2015). Hence, it is crucial for the organization's HR department to recognize the exact reasons why employees choose to stay in the organization as this enables further promotion and development of such practices, which can improve intention to stay and thus retain skilled employees.

Table 1: Employment in ICT Industry from the Year 2010 to the Year 2016

Year	Number of Workforce ('000)	Growth Rate (%)
2010	956.4	-
2011	984.9	3.0
2012	995.3	1.1
2013	1,018.4	2.3
2014	1,041.2	2.2
2015	1,060.0	1.8
2016	1,070.0	0.9

Source: Department of Statistics Malaysia (2015, 2016, 2017)

As such, the main objective of this study is to examine the effects of human resource management (HRM) practices on the intention to stay among IT employees in Klang Valley, Malaysia in the hopes of providing human resource practitioners with the knowledge of how to retain existing employees. The specific objective and research question are stated as follows:

Specific objective

1. To determine the relationships between career development opportunity, work-life balance, and compensation on intention to stay.

Research question

1. What is the relationship between career development opportunity, work-life balance, and compensation on intention to stay?

2. Intention to stay

Intention to stay has been evaluated by the past research into various similar definitions. According to Nasyira, Othman and Ghazali (2014), intention to stay represents the tendency of employees to retain their membership in their current organizations. Johari, Tan, Adnan, Yahya and Ahmad (2012) stated intention to stay as the employees' intention to stay on long term basis in the employment relationship with their existing employer. Intention to stay is also defined as the employees' willingness to remain with an organization (Tett and Meyer, 1993).

Mustapha, Ahmad, Uli and Idris (2011) stated that intention to stay is just the opposite of the turnover intention. Some of the past research has suggested that intention to stay is a good predictor of employee turnover as it negatively affects actual turnover (Nasyira, Othman and Ghazali, 2014; Ghosh, Satyawadi, Joshi and Shadman, 2013; Cavanagh and Coffin, 1992; Price and Mueller, 1981). When employees do not intend to stay in the company, this intention is often followed by turnover behavior (Othman and Lembang, 2017). Nevertheless, intention to stay is important because retention of talented employees with desired skills and attributes is the key for a company in achieving success and maintaining its competitive advantage in the industry (Nasyira, Othman and Ghazali, 2014).

In every organization, employees need to feel that they are part of the firm and that their contributions to the firm are valued (Johari, Tan, Adnan, Yahya and Ahmad, 2012). Hence, the factors associated with an employee's intention to stay are essential for developing strategies that may fulfill an employee's needs and facilitate the urge to remain in the same organization (Othman and Lembang, 2017). A company that values its human capital, designs and/or implements practices and policies specially tailored for employee retention may sustain its success and competitive advantage in its industries (Nasyira, Othman and Ghazali, 2014).

According to Othman and Lembang (2017), effective Human Resources Management (HRM) practices are able to enhance the employees' willingness to stay longer in their current organisations. Some organizations have introduced incentive programs, competitive salaries, comprehensive benefits, and other similar initiatives and policies as their strategies to retain their employees (Johari, Tan, Adnan, Yahya and Ahmad, 2012). In this study, the dependet variable is the intention to stay whereas the HRM practices that will be discussed are career development opportunity, work-life balance, and compensation, which act as the independent variables.

2.1 Career Development Opportunity

Career development is a part of lifelong learning as personal and vocational skills are required to change and develop constantly in response to career changes and emerging opportunities over the course of one's life (Johari, Tan, Adnan, Yahya and Ahmad, 2012). Pittino, Visintin, Lenger and Sternad (2016) highlighted that career development aims at developing the abilities and self-efficacy of the workforce. In a company, career development is a formal approach adopted by a company to make sure that employees with the appropriate qualifications and experiences are available when required. It can help to prevent the threats of an unacceptable and obsolescent workforce, and provides a future direction for human resources department to further develop career advancement activities in the organization (Johari, Tan, Adnan, Yahya and Ahmad, 2012). The organization usually provides opportunities for the employees to develop their capabilities and personal career growth through career development planning and activities (Mathis and Jackson, 2003). When the employees experience personal and career growth, they may demand new tasks that are different from what they usually perform. As such, the company must be concerned and understand clearly employee demands regarding career development pathways in order to thoroughly plan and supporting those demands, thus eventually increasing the employees' intention to stay (Johari, Tan, Adnan, Yahya and Ahmad, 2012).

Past studies have indicated that employees' intention to stay is positively influenced by career development opportunity (Yang, Liu, Liu and Zhang, 2015; Gamage and Herath, 2013; Jiang, Lepak, Hu and Baer, 2012; Chew and Chan, 2008). Yang, Liu, Liu and Zhang (2015) stated that an organization which provides career growth opportunities for its employees may increase the employee retention rate. Gamage and Herath (2013) and Chew and Chan (2008) also found that there is a positive and significant relationship between career development opportunity and intention to stay in which the employees will be more likely to stay in their organizations when they are provided with career development opportunities. Moreover, Jiang, Lepak, Hu and Baer (2012) presented that career development opportunity has a positive effect on employees' intention to stay because it improves their motivation and enables them to enhance their abilities through performing a broader number of tasks or mastering new challenges, which then leads to employee retention.

According to Johari, Tan, Adnan, Yahya and Ahmad (2012), the presence of meaningful work, opportunities for promotion, and even the standard of evaluation used in the reward system may increase the employees' intention to remain. Othman and Lembang (2017) agreed with the sentiment, showing that employees who perceived personal contribution to the company increased their job engagement and were less likely to leave the company. Employees who perceived the possibility of promotions were also more likely to stay with the company. The employees will feel pleased and appreciated when the opportunity for a promotion arises, which affects their decision to remain or leave the company (Othman and Lembang, 2017). Moreover, Gamage and Herath (2013) mentioned that the employee's decision to stay or leave an organization is dependent on whether the work is challenging, support is given at the workplace, and if personal growth is allowed in the organization.

Hence, these lead to the first hypothesis:

Hypothesis 1: There is a positive relationship between career development opportunity and employees' intention to stay.

2.2 Work-life balance

According to Lockwood (2003), work-life balance is a state of equilibrium in which the demands of both a person's job and personal life are equal. On the other hand, Noor (2011) and Edgar Geare, Zhang and McAndrew (2015) stated that work-life balance refers to the effective management between paid work and other activities, including unpaid work in families and the community, personal development, leisure, and recreation.

To provide proper work-life balance for employees, most organizations choose to develop and implement ideal work life practices within the organization (Burke, Burgess and Oberrlaid, 2004). Work-life balance policies include flexible work options (like flexible working hours, job-sharing), telecommuting facilities, sporting and leisure facilities, family leave policies that enable employees to take time off work to manage family matters, and childcare assistance (Suifan, Abdallah and Diab, 2016). By implementing good work-life balance practices in the workplace, employees tend to exhibit positive attitudes towards work as well as show improvement in their performance.

However, a lack of work-life balance practices will incite conflict between an employee's work and personal life. Employees struggle to maintain a balance and eventually quit their jobs (Suifan, Abdallah and Diab, 2016). Work-life conflict occurs when a person's work demand and life demand are conflicted (Sturges and Guest, 2004). This conflict will lead to stress, lack of focus in either role, and will influence performance in either role as well (Quick, Henley and Quick, 2004). As a result, the employees will feel highly pressured and reduce their engagement in the organization, thus lowering their productivity, satisfaction levels, and retention levels at the current employment status (Chimote and Srivastava, 2013).

Lindfelt, Ip and Barnett (2017), and De Cieri, Holmes, Abbott and Pettit (2005) found that intention to stay is positively correlated to work-life balance. According to Lindfelt, Ip and Barnett (2017), an effective work-life balance practice in the organization may reduce employees' stress level and increase their occupational satisfaction, which enhances their intention to stay. They suggested that organizations may improve organizational work-life balance through restriction of working hours, mandatory time off, and accessibility of family-related attraction discounts. In addition, De Cieri, Holmes, Abbott and Pettit (2005) stated that when the work-life balance strategies in an organization increases, the employees will be more likely to utilize the options available, and reduce turnover rate caused by work-life conflict. During the progression in the implementation and management of work-life balance strategies, some substantial barriers may remain in the organizations. Therefore, the managers must involve effective communication with the employees so that the barriers of implementation and management of work-life balance strategies can be minimized.

Work-life balance initiatives can also be further explained to the extent that they can enhance employees' productivity, loyalty to the current company, job satisfaction, and also reduce their turnover intention (Malik, Gomez, Ahmad and Saif, 2010). In contrast, employees who experience critical work-life imbalance have increased their turnover intention and decide to seek alternative employment with a company that has better approaches towards work-life balance practices (Brough, Timms, O'Driscoll, Kalliath, Siu, Sit and Lo, 2014).

Hence, these lead to the second hypothesis:

Hypothesis 2: There is a positive relationship between work-life balance and employees' intention to stay.

2.3 Compensation

Compensation represents the cumulative financial and non-financial rewards that are paid to employees in return for their services (Mondy and Noe, 2005). These rewards normally are given based on the job value, personal contributions, efforts and performance level (Milkovich and Newman, 2005). According to Heneman and Schwab (1985), compensation can be divided into two categories: direct compensation and indirect compensation. Direct compensation refers to salaries, wages, incentive bonus, and any other financial payments given by the organization, while indirect compensation is the benefits offered by the organization, such as employee's and their dependent's insurance.

According to Johari, Tan, Adnan, Yahya and Ahmad (2012), compensation is significant in attracting, retaining and motivating the employees at the organizational level, in order to increase their job performance, improve career satisfaction, and minimize their turnover intention. Compensation acts as one of the most important costs of business operation (Johari, Tan, Adnan, Yahya and Ahmad, 2012). This is because other HRM practices like employee training, career development, or rewards and recognition must be associated with sufficient pay in order to retain talented employees (Othman and Lembang, 2017). Furthermore, the organization also uses compensation to design and provide rewards for employees who fulfill the assigned specific goals, so that the company can align employee interests with organizational goals to achieve organizational success (Johari, Tan, Adnan, Yahya and Ahmad, 2012).

Past studies have shown that sufficient compensation is a significant strategy that can retain talented employees, with attractive and effective compensation packages facilitate productivity, enhance organizational commitment, and increase intention to stay in the organization (George, 2015; Walsh and Taylor, 2007; Cho, Woods, Jang and

INSIGHT JOURNAL Volume 2
Published by UiTM Caw. Johor, Malaysia
eISSN 2600-8564

Erdem, 2006). George (2015) mentioned that the company must be transparent when offering compensation to the employees, meaning that salaries given should be fair, reflect a satisfactory balance between performance and rewards, and be consistent with capability, responsibility and workload, all of which will increase the intention to stay.

Furthermore, Walsh and Taylor (2007) also agreed that when employees are being compensated fairly and equitably, they tended to stay in the organization. They suggested that the company should allow employees to have a deeper understanding about company salary levels, external indicators that affect their compensation (such as industry averages and company location), and the range of performance level which determine the amount of their compensation increment. This way, fairness perception on how employees are being compensated will improve. Past research by Cho, Woods, Jang and Erdem (2006), also highlighted that competitive compensation enables a company to increase the intention to stay of its non-managerial employees.

Therefore, available research shows that companies that provide attractive and satisfactory compensation packages are more likely to entice employees into staying with the company (Johari, Tan, Adnan, Yahya and Ahmad, 2012). However, if employees think they are underpaid, their satisfaction will decrease and they become potentially to seek another company which will offer better compensation for them (Othman and Lembang, 2017).

The discussions above lead to the third hypothesis:

Hypothesis 3: There is a positive relationship between compensation and employees' intention to stay.

3. Research Methodology

3.1 Research Design

This preliminary study used a quantitative research design. According to Sekaran and Bougie (2016), primary data refer to the original data gathered first-hand by the researcher when conducting a research. This kind of data tends to be more reliable compared to secondary data because researchers run the risk of secondary data being interpreted wrongly or being modified on purpose for a better outcome. Quantitative research is based on the positivism and neo-positivism methodological principles, and adheres to the criterions of a strict research design developed prior to the actual research (Adams, Khan and Raeside, 2014).

In terms of objectives, this is an explanatory study on causal and effect relationship. An explanatory study aims to describe social events or relations, enhance knowledge about the structure, process and nature of social events, connect elements and factors of issues into general statements, and revise a theory (Adams, Khan and Raeside, 2014). This study will test the ability of the Maslow Theory (Kaur, 2013) and Herzberg's Two Factors Theory (Wan Yusoff, Tan and Mohamed Idris, 2013) to explain the relationships and effects of HRM practices on intention to stay.

Saunders, Lewis and Thornhill (2015) highlighted that a survey is an effective tool for quantitative data collection as it allows the researcher to analyze the data easily using descriptive and inferential statistics. Hence, a questionnaire was constructed for use as the instrument for this study. Out of 400 questionnaires randomly distributed to IT employees in the Klang Valley, 123 were returned, yielding a response rate of 30.75%.

3.2 Measurement Tools

The questionnaire contained questions regarding individual profiles, intention to stay, career development opportunity, work-life balance, and compensation Items for the dependent variable and independent variables were adopted from former research, such as Armstrong-Stassen and Ursel (2009), Delery and Doty (1996), Brough, Timms, O'Driscoll, Kalliath, Siu, Sit and Lo (2014) and Heneman and Schwab (1985). To conclude, there are five items in the demographic section for IT employees in the Klang Valley, Malaysia, three items for intention to stay, and 26 items to measure the HRM practices that affect intention to stay on a five-point Likert scale which ranged from (1) Strongly Disagree to (5) Strongly Agree.

3.3 Data Analysis

Statistical Package for Social Science (SPSS) Version 22.0 was used to answer the research objectives of this study. Normality analysis was used to test whether the sample data were normally distributed, reliability analysis was done to examine correlation between items in a set, and descriptive statistics were used to identify the mean and standard deviation of the items from data collected. This study included 2 negatively worded questions which were recorded on the reverse point scale. Furthermore, Pearson Product Moment Correlation was utilized to test the strength of relationship between dependent and independent variable. This coefficient has a range of possible values, r, from –1 to +1, where the sign (–) indicates a negative correlation and the sign (+) indicates a positive correlation. The significance of the correlation coefficient will be represented as a p-value. Meanwhile, multiple regression was utilized to assess the best predictor among the independent variables (career development opportunity, work-life balance, and compensation) for intention to stay. The regression line is represented by the formula of $Y' = bX + \alpha$. Then, Guilford's rule of thumb, as shown in table 2, was used to explain the strength of relationship between independent variables and dependent variable of this study.

Table 2: Guilford's rule of thumb (Guilford, 1956, p. 145)

r	Strength of relationship
> .9	Very high correlation
.7 - .9	High correlation
.4 - .7	Moderate correlation
.2 - .4	Low correlation
<.2	Almost negligible relationship

4. Results

4.1 Socio-demographic Profile

A total of 123 respondents participated in this preliminary study. Out of these 123 respondents, 89 of them (72.4%) were male and 34 (27.6%) were female. This means that the number of male respondents participated in the survey was higher than the number of female respondents. The youngest respondent was 23 years old while the eldest was 61 years old. The average age of all the respondents is approximately 31 years old, thus indicating that IT employees in Klang Valley are relatively young. Out of 123 respondents, majority of the respondents, which is 106 of them (86.2%) own a Bachelor Degree education qualification, 14 respondents (11.4%) possess a Master's Degree, and only 3 respondents (2.4%) had qualifications equivalent to secondary school/certificate/diploma/foundation. Furthermore, 99 respondents (80.5%) were Malaysians, making it the most common nationality in this survey. Other nationalities included 13 Filipino respondents (10.6%), 5 Indonesian respondents (4.1%), and 3 Indian respondents (2.4%). Lastly, there was one (0.8%) respondent with Sri Lankan, British, and Myanmar nationalities respectively. The length of service of the respondents ranged from one month (the shortest) to 12 years and 3 months (the longest). On average, the respondents served their organizations for a time horizon of about 3 years and 10 months.

4.2 Empirical results

All variables in this study were normally distributed. Table 3 shows that all factor loadings were highly significant, representing the fundamental requirement for convergent validity ~~was fulfilled~~. Since all standardized factor loadings were higher than the minimum acceptable value of 0.4, ~~meaning~~ convergent validity was adequate for these four scales (Sekaran and Bougie, 2016). The composite reliabilities based on Cronbach's α coefficients of all items in four different sets ranged from 0.73 to 0.97, which exceeded the minimum acceptable value of 0.70 (Sekaran and Bougie, 2016). Hence, all items met the standard and proved to be valid and reliable. In addition, the skewness values of all items were within the acceptable range of $-2 \leq x \leq 2$, therefore they were determined as normally distributed (Sekaran and Bougie, 2016).

Table 4 illustrates the relationship between IT employees' intention to stay and the three independent variables (career development opportunity, work-life balance, and compensation). The results indicate a significant positive relationship between all these independent variables with intention to stay. Career development opportunity is highly correlated to the intention to stay ($r=0.71$, $p<0.01$), followed by compensation which has moderate correlation with intention to stay ($r=0.66$, $p<0.01$), and lastly, work-life balance has the lowest correlation with intention to stay among all three independent variables ($r=0.45$, $p<0.01$). Based on the analyses, all hypotheses of this study are accepted.

Table 3: Confirmatory Factor Analysis, Reliability Analysis and Descriptive Statistics

Content of Items	Mean	SD	Factor Loading	Cronbach's α	Skewness
Intention to stay (DV)	3.66	0.77		0.90	
If I were completely free to choose, I would prefer to continue working in this organization.	3.82	0.81	0.92		-0.789
As far as I can see, I would remain in this organization indefinitely.	3.50	0.92	0.93		-0.659
I expect to continue working as long as possible in this organization.	3.66	0.80	0.90		-0.780
Career development opportunity				0.73	

I have clear career paths within the organization.	3.65	0.84	0.82		-0.698
I have very little future within this organization.	3.63	1.00	0.70		-0.812
Employees' career aspirations within the company are known by their immediate supervisors.	3.51	0.73	0.80		-0.108
Employees in this job who desire promotion have more than one potential position they could be promoted to.	3.25	0.86	0.67		-0.128
Work-life balance				0.90	
I currently have a good balance between the time I spend at work and the time I have available for non-work activities.	3.93	0.91	0.91		-0.926
I have difficulty balancing my work and non-work activities.	3.71	0.96	0.75		-0.754
I feel that the balance between my work demands and non-work activities is currently about right.	3.71	0.88	0.90		-0.433
Overall, I believe that my work and non-work life are balanced.	3.76	0.89	0.94		-0.731
Compensation				0.97	
I am satisfied with my take-home pay.	3.40	0.99	0.84		-0.357
I am satisfied with my benefit packages.	3.58	0.88	0.80		-0.535
I am satisfied with my most recent raise.	3.24	0.85	0.79		-0.067
I am satisfied with the influence of my supervisor has on my pay.	3.32	0.78	0.65		-0.207
I am satisfied with my current salary.	3.31	0.95	0.88		-0.250
I am satisfied with the amount the company pays toward my benefits.	3.59	0.91	0.85		-0.454
I am satisfied with the raises I have typically received in the past.	3.27	0.81	0.81		-0.061
I am satisfied with the company's pay structure.	3.27	0.83	0.84		-0.191
I am satisfied with the information the company gives about pay issues of concern to me.	3.33	0.83	0.73		-0.515
I am satisfied with my overall level of pay.	3.33	0.90	0.89		-0.283
I am satisfied with the value of my benefits.	3.55	0.86	0.86		-0.636
I am satisfied with the pay of other jobs in the company.	3.25	0.73	0.77		-0.048
I am satisfied with the consistency of the company's pay policies.	3.39	0.89	0.85		-0.435
I am satisfied with the size of my current salary.	3.32	0.93	0.89		-0.248
I am satisfied with the number of benefits I receive.	3.59	0.81	0.78		-0.329

I am satisfied with how my raises are determined.	3.35	0.89	0.86	-0.393
I am satisfied with the differences in pay among jobs in the company.	3.27	0.77	0.80	-0.063
I am satisfied with how the company administers pay.	3.48	0.75	0.82	-0.107

Table 4: Pearson's Correlation Coefficient

No.	Variables	Mean	SD	1	2	3
1	Intention to stay	3.66	0.77			
2	Career development opportunity	3.51	0.64	.71**		
3	Work-life balance	3.78	0.79	.45**	.45**	
4	Compensation	3.38	0.70	.66**	.68**	.48**

Table 5: Result for Multiple Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.752	.566	.555	.51392	1.873

Table 6: Result for ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.012	3	13.671	51.761	.000
	Residual	31.429	119	.264		
	Total	72.441	122			

Table 7: Result for Coefficient

Model		Under standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.235	.288		.816	.416
	Career Development Opportunity	.556	.101	.462	5.527	.000
	Work-life balance	.104	.068	.107	1.524	.130
	Compensation	.320	.094	.291	3.408	.001

Based on table 5, 56.6% of the total variation (R-squared) in intention to stay can be explained by all the independent variables (career development opportunity, work-life balance and compensation). In table 6, the coefficient of determination (R=.752, p<0.01) indicated that the research model is fit for use in the data analysis.

Next, table 7 shows that career development opportunity is the best predictor for intention to stay (β=.462, $p<0.01$), followed by compensation. Whereas, work-life balance (β=.107, $p>0.05$) indicates that when all three variables present at the same time, work-life balance is no longer significant to the IT employees' intention to stay if compared to career development opportunity and compensation. Thus, the formula of this study's regression line will be:

Y'= 0.556(Career Development Opportunity) + 0.320(Compensation) + 0.235

5. Discussions

Past research has identified factors – related to HRM practices – that affect intention to stay, including career development opportunity, compensation, performance evaluation, work-life balance/ flexible work practices, job satisfaction, recognition and respect, organizational commitment, perceived organizational support and perceived supervisor support. However, there is still a literature gap regarding studies focused on IT employees in organizations in Malaysia are limited. Hence, this study provides interesting findings that fill the gaps of knowledge regarding HRM practices in literature.

The results above have presented a significant moderate positive correlation between career development opportunity and intention to stay (β=.462, $p<0.01$). It indicates that when career development opportunities given by an organization increase, the intention to stay among IT employees in Klang Valley, Malaysia, will also increase. Besides that, the first hypothesis in this study is also consistent with the findings from past research done by Yang, Liu, Liu and Zhang (2015), Gamage and Herath (2013), Jiang, Lepak, Hu and Baer (2012) and Chew and Chan (2008).

Next, compensation is found to have a significant low positive correlation with intention to stay (β=.291, $p<0.01$). When the amount of compensation given by an organization increases, the intention to stay of IT employees in Klang Valley, Malaysia, also increases. In addition, the third hypothesis in this study is also consistent with the findings from past research done by George (2015), Walsh and Taylor (2007), and Cho, Woods, Jang and Erdem (2006).

Furthermore, work-life balance has no significant correlation with intention to stay (β=.107, $p>0.05$). It represents the intention to stay among IT employees in Klang Valley, Malaysia is not affected even when the level of work-life balance given by an organization increases. This finding is inconsistent with the second hypothesis of this study as well as the findings from past research done by Lindfelt, Ip and Barnett (2017) and De Cieri, Holmes, Abbott and Pettit (2005). However, it is consistent with the finding from the research done by Oosthuizen, Coetzee and Munro (2016) where no significant correlation between work-life balance and intention to stay was observed. This could be due to the direct positive correlation between work-life balance and employee job satisfaction instead of intention to stay. Thus, the intention to stay will only increase when job satisfaction level increases (Oosthuizen, Coetzee and Munro, 2016).

Lastly, career development opportunity and compensation were significant predictors of intention to stay, but work-life balance (β<.107, $p>0.05$) was not. Moreover, career development opportunity was the best predictor for intention to stay. As such, human resource practitioners should provide plenty of career development opportunities for employees to increase their intention to stay. At the same time, since compensation is the second significant predictor of intention to stay, human resource practitioners should conduct salary surveys to benchmark their company's salary levels against industry salary levels so that IT company can provide competitive compensation to its employees and increase their intention to stay.

6. Conclusions

This study confirmed that HRM practices have positive significant relationships with the intention to stay among IT employees in Klang Valley, Malaysia. Based on the findings above, it showed that career development opportunity has a significant moderate positive correlation with intention to stay, while compensation has a significant low positive correlation with intention to stay. However, there is no significant correlation between work-life balance and intention to stay. This shows that intention to stay will only increase when career development opportunity or compensation given by the company is increased.

Furthermore, career development opportunity is found to be the best predictor of employees' intention to stay, followed by compensation. As such, it can be concluded that appropriate HRM practices are highly important for an organization to retain existing employees, hence, the company's HR department must be able to plan, implement, execute, and maintain HRM practices effectively and efficiently to increase the employees' intention to stay.

6.1 Recommendation

As a recommendation, companies in Klang Valley, Malaysia may improve their IT employees' intention to stay by offering a better and effective career development opportunities to fulfill their career aspirations. The companies may enhance the current career development opportunities by developing a framework for career development through communication with the employees to achieve a mutual agreement regarding short- and long-term development goals of both the organization and employee. Therefore, the company's HR department plays an important role in coordinating the top managers, line managers, and employees into the employee career development process (Khan, Rajasekar and Al-Asfour, 2015).

Besides that, the company may increase the employees intention to stay by improving work-life balance practices through implementation of flexible working hours, and supervisory support on work-life balance practices like allowing employees to work from home when required (Mas-Machuca, Berbegal-Mirabent & Alegre, 2016). Whereas, compensation practices also can be improved to increase employees intention to stay by enabling the employees to have a clear understanding of the level of performance and average compensation of the industry that are used to determine their salary levels, so that a fair and transparent paying decision can be shown (Walsh and Taylor, 2007).

In addition, it is also recommended that other HRM practices like training and development, performance evaluation, job satisfaction, recognition and respect, and organizational commitment can be implemented and developed by the organization to increase the intention to stay of existing employees (Ghosh, Satyawadi, Joshi and Shadman, 2013; Johari, Tan, Adnan, Yahya and Ahmad, 2012).

7. Limitation and Future Research

There are some limitations in this study which should be taken into consideration. Firstly, this study only focuses on the IT employees who work in Klang Valley, Malaysia. Hence, the results of the study should not be generalized to represent those IT employees who work outside Klang Valley and other geographical regions. This is because they might have different organizational cultures and living standards.

Next, this study is limited to three independent variables, which are career development opportunity, work-life balance, and compensation. As shown in table 4, 56.6% of the total variation in intention to stay can be explained by all three independent variables of this study. However, there is still another 43.4% of the total variation in intention to stay that is affected by the factors which are not included in the present study.

For future research, it is suggested to examine the intention to stay of IT employees who work in other areas and explore the difference between them and the IT employees in Klang Valley, Malaysia. Future research can also include wider geographical area so that more IT employees can be surveyed and analyzed for more accurate findings. Furthermore, the intention to stay of IT employees can be examined by including more independent variables in the future research, such as organizational commitment, working environment, relationship with co-workers, and supervisor support. Lastly, the data is suggested to be collected for twice or more times in order to improve the consistency and reliability of the data.

Acknowledgments

This study received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

References

Adams, J., Khan, H., & Raeside, R. (2014). *Research Methods for Business and Social Science Students* (2nd ed.). New Delhi: SAGE Publications.

Al Mamun, C. and Hasan, M. (2017). Factors Affecting Employee Turnover and Sound Retention Strategies in The Business Organization: A Conceptual View. *Problems and Perspectives in Management*, *15*(1), 63-71.

Aon Hewitt. (2016). *With Voluntary Employee Turnover on the Rise, Technology Sector Companies in Singapore and Asia-Pacific Boost 2017 Salary Budgets*. [online] Available from: https://apac.aonhewitt.com/document-files/media/oct-nov-2016/aon-radford-technology-sector-salary-trends [Accessed: 5 August 2017].

Armstrong-Stassen, M. and Ursel, N. (2009). Perceived Organizational Support, Career Satisfaction, and the Retention of Older Workers. *Journal of Occupational and Organizational Psychology*, *82*(1), 201-220.

Armstrong-Stassen, M., Freeman, M., Cameron, S. and Rajacic, D. (2015). Nurse Managers' Role in Older Nurses' Intention to Stay. *Journal of Health Organization and Management*, *29*(1), 55-74.

Bhattacharya, Y. (2015). Employee Engagement as a Predictor of Seafarer Retention: A Study among Indian Officers. *The Asian Journal of Shipping and Logistics*, *31*(2), 295-318.

Brough, P., Timms, C., O'Driscoll, M., Kalliath, T., Siu, O., Sit, C. and Lo, D. (2014). Work–life Balance: A Longitudinal Evaluation of A New Measure Across Australia and New Zealand Workers. *The International Journal of Human Resource Management*, *25*(19), 2724-2744.

Burke, R. J., Burgess, Z. and Oberrlaid, F. (2004). Do Male Psychologists Benefit from Organizational Values Supporting Work-Personal Life Balance?. *Equal Opportunities International, 23* (1), 97-107.

Cavanagh, S. and Coffin, D. (1992). Staff Turnover among Hospital Nurses. *Journal of Advanced Nursing*, *17*(11), 1369-1376.

Chew, J. and Chan, C. (2008). Human Resource Practices, Organizational Commitment and Intention to stay. *International Journal of Manpower*, *29*(6), 503-522.

Chimote, N. K., and Srivastava, V. N. (2013). Work-life balance benefits: From the perspective of organizations and employees. *IUP Journal of Management Research*, *12*(1), 62–73.

Cho, S., Woods, R., Jang, S. and Erdem, M. (2006). Measuring the Impact of Human Resource Management Practices on Hospitality Firms' Performances. *International Journal of Hospitality Management*, *25*(2), 262-277.

De Cieri, H., Holmes, B., Abbott, J. and Pettit, T.(2005). Achievements and Challenges for Work/Life Balance Strategies in Australian Organizations. *The International Journal of Human Resource Management*, *16*(1), 90-103.

Delery, J. and Doty, D. (1996). Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurations. Performance Predictions. *Academy of Management Journal*, *39*(4), 802-835.

Department of Statistics Malaysia. (2015). *Information and Communication Technology Satellite Account, 2010-2014*. Retrieved 30 July 2017, from: https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=319&bul_id=aHBPSStGSU9LUU5VMzVHa29OT1Ewdz09&menu_id=TE5CRUZCblh4ZTZMODZIbmk2aWRRQT09

Department of Statistics Malaysia. (2016). *ICT's Contribution to Economy Increased 17.8 Per Cent in 2015*. Retrieved 30 July 2017, from: https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=319&bul_id

=Nm5nWlJZTUVSL3l6MGtSVWdhb0dnUT09&menu_id=TE5CRUZCblh4ZTZMODZIbmk2aWRRQT09

Department of Statistics Malaysia. (2017). *Information and Communication Technology Satellite Account 2016*. Retrieved 8 January 2018, from: https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=319&bul_id=MjhtcEV6dGFSOGc3NnEwaytRUkhTUT09&menu_id=TE5CRUZCblh4ZTZMODZIbmk2aWRRQT09

Edgar, F., Geare, A., Zhang, J. and McAndrew, I. (2015). Mutual Gains or Conflicting Outcomes? How HRM Benefits Professionals. *International Journal of Manpower*, *36*(8), 1248-1265.

Gamage, P.N. and Herath, H.M.A. (2013), Job Related Factors and Intention to Stay of IT Professionals in Sri Lanka. *International Journal of Social Science and Interdisciplinary Research*, *2*(7), 136-145

George, C. (2015). Retaining Professional Workers: What Makes Them Stay? *Employee Relations*, *37*(1),102-121.

Ghosh, P., Satyawadi, R., Joshi, J., and Shadman, M. (2013). Who Stays with You? Factors Predicting Employees' Intention to Stay. *International Journal of Organizational Analysis*, *21*(3), 288-312.

Guilford, J., P. (1956). Fundamental Statistics in Psychology and Education, New York: McGraw Hill

Heneman, H. and Schwab, D. (1985). Pay Satisfaction: Its Multidimensional Nature and Measurement. *International Journal of Psychology*, *20*(1), 129-141.

Jiang, K., Lepak, D., Hu, J. and Baer, J. (2012). How Does Human Resource Management Influence Organizational Outcomes? A Meta-analytic Investigation of Mediating Mechanisms. *Academy of Management Journal*, *55*(6), 1264-1294.

Johari, J., Tan, F., Adnan, Z., Yahya, K. and Ahmad, M. (2012). Promoting Employee Intention to Stay: Do Human Resource Management Practices Matter?. *International Journal of Economics and Management*, *6*(2), 396-416.

Kaur, A., (2013). Maslow's Need Hierarchy Theory: Applications and Criticisms. *Global Journal of Management and Business Studies*, *3*(10), 1061-1064.

Khan, S., Rajasekar, J., & Al-Asfour, A. (2015). Organizational Career Development Practices: Learning from an Omani Company. *International Journal Of Business And Management*, *10*(9).

Kwenin, D. (2013). Relationship Between Work Environment, Career Development Opportunities and Employee Retention in Vodafone Ghana Limited. *Global Journal of Human Resource Management*, *1*(4), 1-9.

Lindfelt, T., Ip, E. and Barnett, M. (2017). The Impact of Work-Life Balance on Intention to Stay in Academia: Results from A National Survey of Pharmacy Faculty. *Research in Social and Administrative Pharmacy*, 1-4. http://dx.doi.org/10.1016/j.sapharm.2017.04.008.

Lockwood, N. (2003). Work/life Balance: Challenges and Solutions. *SHRM Journal*, *48*(6), 81-90.

Lumley, E., Coetzee, M., Tladinyane, R. and Ferreira, N. (2011). Exploring the Job Satisfaction and Organizational Commitment of Employees in the Information Technology Environment. *Southern African Business Review*, *15*(1), 100-118.

Malik, M. I., Gomez, S. F., Ahmad, M., and Saif, M. I. (2010). Examining the Relationship of Work Life Balance, Job Satisfaction and Turnover in Pakistan. *OIDA International Journal of Sustainable Development, 2*(1), 27–33

Mas-Machuca, M., Berbegal-Mirabent, J., & Alegre, I. (2016). Work-life balance and its relationship with organizational pride and job satisfaction. *Journal Of Managerial Psychology*, *31*(2), 586-602

Mathis, R. and Jackson, J. (2003). *Human Resource Management* (10th ed.) Mason: Thomson-South Western

McCraw, D. (2017). *10 Critical Skills for Today's IT Workforce*. Retrieved 16 January 2018, from https://certification.comptia.org/it-career-news/post/view/2017/03/17/10-critical-skills-for-today-s-it-workforce

MDEC. (2017). *MSC Malaysia Directory | MDEC*. Retrieved 29 July 2017, from: https://www.mdec.my/directory/msc-malaysia-directory

Milkovich, G. T. and Newman, J. M. (2005) *Compensation* (8th ed). McGraw-Hill: Boston.

Mondy, R. and Noe, R. (2005). *Human Resource Management* (9th ed). New Jersey: Pearson Education.

Mustapha, N., Ahmad, A., Uli, J. and Idris, K. (2011). Work-Family Facilitation and Family Satisfaction as Mediators in the Relationship between Job Demands and Intention to Stay. *Asian Social Science*, *7*(6), 142-153.

Nasyira, M., Othman, M. and Ghazali, H. (2014). Predictors of Intention to Stay for Employees of Casual Dining Restaurant in Klang Valley Area. *International Food Research Journal*, *21*(3), 863-871.

Noor, K. M. (2011). Work-life Balance and Intention to Leave among Academics in Malaysian Public Higher Education Institutions. *International Journal of Business and Social Science*, *2*(11), 240-248.

Oosthuizen, R., Coetzee, M. and Munro, Z. (2016). Work-life balance, Job Satisfaction and Turnover Intention amongst Information Technology Employees. *Southern African Business Review*, *20*(1), 446-467.

Othman, S. and Lembang, S. (2017). What Attract Gen Y to Stay in Organization? HR Practices, Organizational Support or Leadership Style. *International Review of Management and Marketing*, *7*(2), 1-9. Retrieved 28 September 2017, from: https://www.econjournals.com/index.php/irmm/article/viewFile/3413/pdf

Pittino, D., Visintin, F., Lenger, T. and Sternad, D. (2016). Are high performance work practices really necessary in family SMEs? An analysis of the impact on employee retention. *Journal of Family Business Strategy*, *7*(2), 75-89.

Price, J. and Mueller, C. (1981). A Causal Model of Turnover for Nurses. *Academy of Management Journal*, *24*(3), 543-565.

Quick, J. D., Henley, A. B., and Quick, J. C. (2004). The Balancing Act: At Work and At Home. *Organizational Dynamics*, 33, 426-438.

Saunders, M., Lewis, P. and Thornhill, A. (2015). *Research Methods for Business Students*. (7th ed.) Harlow: Pearson Education Limited.

Sekaran, U. and Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed.) West Sussex: John Wiley & Sons Ltd.

Sturges, J., and Guest, D. (2004). Working to Live or Living to Work? Work/Life Balance Early in the Career. *Human Resource Management Journal, 14*(4), 5–20.

Suifan, T., Abdallah, A. and Diab, H. (2016). The Influence of Work Life Balance on Turnover Intention in Private Hospitals: The Mediating Role of Work Life Conflict. *European Journal of Business and Management*, *8*(20), 126-139.

Tett, R. and Meyer, J. (1993). Job Satisfaction, Organizational Commitment, Turnover Intention, and Turnover: Path Analyses Based on Meta-Analytic Findings. *Personnel Psychology*, *46*(2), 259-293.

Van Dyk, J. and Coetzee, M. (2012). Retention Factors in relation to Organizational Commitment in Medical and Information Technology Services. *SA Journal of Human Resource Management*, 10(2).

Walsh, K. and Taylor, M. (2007). Developing In-House Careers and Retaining Management Talent. *Cornell Hotel and Restaurant Administration Quarterly*, *48*(2), 163-182.

Wan Yusoff, W., Tan, S., & Mohamed Idris, M. (2013). Herzberg's Two-Factor Theory on Work Motivation: Does it Works for Todays Environment?. *Global Journal Of Commerce And Management Perspective*, *2*(5), 18-22. Retrieved from https://www.researchgate.net/publication/262639924_Herzberg%27s_Two-Factor_Theory_on_Work_Motivation_Does_it_Works_for_Todays_Environment

Yang, Y., Liu, Y., Liu, J. and Zhang, H. (2015). The Impact of Work Support and Organizational Career Growth on Nurse Turnover Intention in China. *International Journal of Nursing Sciences*, *2*(2), 134-139.

INSIGHT JOURNAL

UNIVERSITI TEKNOLOGI MARA
CAWANGAN JOHOR

Volume 2 : 2018
eISSN 2600-8564
Indexed in MyJurnal MCC