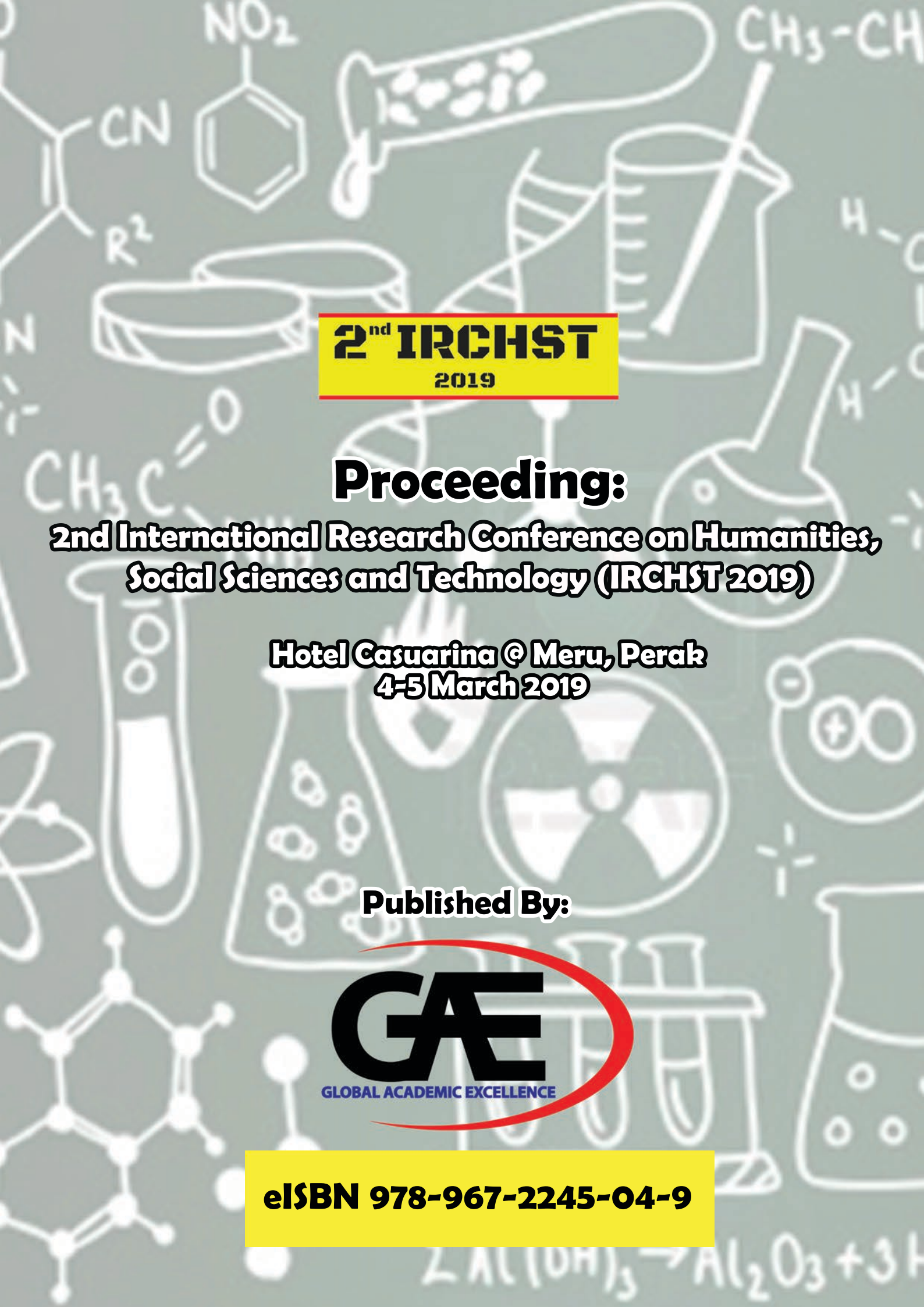

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THE CHALLENGES OF MAKING FOOD CHOICE IN A NEW COUNTRY.

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Abstract: *The experiences of the gradually increasing numbers of international students have received growing interest from academics, practitioners, and policymakers around the world. This was majorly due to the contribution from international students' fees and spending, and from the unique and subsequent changes in the culture and practice of this student group, making their well-being a focus. It was a fundamental challenge for the international students in a foreign country to locate and source for food choice that was familiar to them. Migration has become a major turning point to independent life for most international students in the new country. The experience was more challenging for them because it required their personal commitment on food provisioning responsibilities and a new food choice system alongside the stressful academic roles and responsibilities. Therefore, the context of international students' challenges when making food choice received dedicated attention through this study. A qualitative method using grocery shopping observation and an in-depth interview was conducted among ten international students at a university in Northern Malaysia. The key findings indicated that the adjustment experience in the new country greatly influenced the food choice decision of the international students. The main contribution of this study relies on the application of the life course perspective in the study of food choice decision because of the consideration of migration as a turning point and transition of food choices. In contrast to other studies on food choice and dietary acculturation, this study provides a valuable lens using the life course perspective that gives a wider context on the stages in food choice decision-making process. The results from this study can provide a better understanding on food choice among international students during their transition in the new country.*

Keyword*: Food choice, international students, food acculturation, life course perspective*

Introduction

This aim of this study is to address the food choice process of international students at a university in Northern Malaysia. There are three objectives for this study; firstly, is to explore the perception of food choice. The migration for the international students was a turning point in their life course, and this study focused on the context of their adjustment experiences of new food choice in Malaysia during the transition. Secondly, this study will attempt to elucidate the life course perspective (Furst et al., 1996) on the food choice decisions, by identifying event and experiences during life course, the personal and social factors, cultural ideals, resources, and current context and trends that influenced their new food choice construction. Finally, this research will examine food choice strategy in the new country

.

The context of this study is within three area of focus; the international students, food choice process and food choice strategy. The life course perspective concept developed by Furst et al. (1996) was applied to explore the influences and the significant components of life course experiences in the construction of food choice during the early phase of transition. The study by Furst et al. (1996) includes three basic components in life course perspective model; the life course, influences, and personal system. It was explained in Sobal et al., (2006), that based on the life course perspective, the food choice patterns were often attributed to the factors or influences of past experiences and the current situation which shaped a personal system when selecting food choice. Thus, the life course perspective concept was employed in this study because it represents the important elements of experience, influence and personal system of the new food choice construction during transition.

Food choice is a dynamic process and major changes such as migration became a turning point that lead to disruption in food choice and undermined food habits and practice (Sobal et al., 2006). The disruption and changes in food habits after migration may cause '*dietary acculturation',* defined in Satia-Abouta (2003:74) as the 'process that occurs when members of migrating group adopt the eating patterns or food choices of their new environment'. In this context, the life course perspective may be able to further point out how international students adapt to the new food choice and practices using acculturation strategy such as; integration, separation, assimilation and marginalization (Berry, 1997). For the purpose of this study, the new food choice decision in the new country will be referred to as 'food acculturation'.

Luedicke (2011:2) explained consumer acculturation in a more specific context; 'consumer acculturation not only exists as a process of adaptation on the part of the immigrants but also manifests as experiences, interpretations, and practices through which immigrant and indigenous groups adjust to one another's consumption choices, behaviours, ideologies, and status ambitions'. It is important to note that acculturation is dependent upon specific context and it was suggested that it should be measured with qualitative methods (Rudmin, 2009; Luedicke, 2011). Therefore, this study employed qualitative approach for the main data collection using accompanied shop observation and in-depth interviews, in order to achieve the research objectives. It was found that the accompanied shop observation and in-depth interview both complement each other in exploring the food choice decision made during grocery shopping and food provisioning tasks and consumption. It gave access to a more holistic view on the food choice decisions made during transition of new international students to a new country.

Literature Review

The International Students

The continuous growth of international students worldwide was found to be parallel with the numerous studies dedicated to them with the most commonly research topic area on the cultural adjustments and personal changes (Tirelli & Martinez-Ruiz, 2014). The literature on international students goes on more detail on the importance of food during the adjustment; such as meanings attached to food such as emotional and physical sustenance, comfort, fulfilling and sense of belonging (Brown, Edwards & Hartwell, 2010; Collins, 2008); the dietary changes upon migration (Pan, Dixon, Himburg & Huffman., 1999; Alakaam, Castellanos, Bodzio & Harrison, 2015); and resistant to change eating habits (Perez-Cueto, Verbeke, Lachat & Winter, 2009;

Amos, 2014). However, there are still very little empirical studies focused on the role of food and how transition influence the food choice adjustment of international students (Brown, 2009, Amos, 2014).

International education is a major export industry at university level and international students made valuable educational and economic contribution to the host country (Andrade, 2006; Brown, 2009). Being a financial asset to universities, with wide range of knowledge and skills and rich in heritage and culture, the international students helped increase cultural awareness and appreciation to the country in which they are studying (Binsardi & Ekwulugo, 2003; Andrade, 2006). Adding to this, Berry (2006) stated that the international student's stay is mutually beneficial; as the students bring a range of asset to the host country and in return gain higher education. Despite the significant contribution, the adjustment and transitional experience of mobile migration population such as international students remains unclear (Li & Gasser, 2005; Perez- Cueto, 2009). The importance on the contribution from the fees and the outcomes of hosting international students made it critical to gain a clear understanding and the mechanism of the adjustment process in order to increase awareness and inform the type and delivery of pastoral and academic support needed to improve adjustment experience, which in return, may increase recruitment of international students in the future (Ward, 2001; Chapdelaine et al., 2004; Brown, 2009; Brown & Holloway, 2008; Brown et al., 2010).

The Food Choice in the New Country

Attending foreign universities in a country with a different cultural background and practice means that international students not only have to manage common adjustment problems, but also balancing life in new social and educational organizations (Zhou, 2008). Among the international student's adjustment and challenges widely discussed were; English language proficiencies, academic concerns, culture shock, homesickness, new cultural experiences, building new friendship, and facing challenges associated with daily living (Yang, Berning, Colson & Smith, 2015; Mori, 2000). A study by Brown (2009) included the adjustment and challenges in food habits and practices during transition in an ethnographic study on postgraduate international students' adaptation to life in England.

Several studies claimed that international student's migration to another country could cause culture shock (Chapdelaine et al., 2004; Zhou et al., 2008), and the consumption of familiar and comforting food in the new culture was found to ease this symptom (Oberg, 1960; Garza-Guerrero, 1974). Food issues were only mentioned incidentally as one of the aspects that international students found distressing (Furukawa, 1997). Food became greatly important in providing support both emotionally and physically, as found in Brown et al. (2010) in the study on meaning attached to food eaten in the new culture among international students.

Furukawa (1997) noted that food can have the greatest impact on adjustment. However, Furukawa further commented that the importance of meals and food has not always received prominence when considering the overall acculturation process which the international students will go through. The move to a new country, exposed migrants (including the international students) to acculturation when they need to conform to the customs and culture of the host and it affected their dietary practice, eating patterns and other food related behaviour including food choice (Edwards et al., 2010). According to Berry et al. (1997), although factors leading to acculturation vary, the basic process of adaptation appears to be common to all migrant groups.

In a more focused note, Colby, Morrison and Hadelman (2009) and Satia-Abouta, Patterson, Kristal et al. (2002) defined the food related changes (food habits, practice, patterns and setting), as dietary acculturation. The adaptation to these changes was not a simple, linear process; but a very difficult, complex and dynamic process and was critical in the development of food habits in the new context (Satia- Abouta et al., (2002). Studies on the process of acculturation however, tends to focus more on the food habits after they have been established for some time (Perez- Escamilla & Putnik., 2007), although it was found in Brown et al. (2010) that international students' food habits were affected by a significant culture shock during the first period of their study.

Sobal et al. (2009) explained the complexity of food choice decision making whereby it is being examined on many aspects of social and behavioural sciences, for example; making food choice decisions requires complex considerations when deciding when to eat, either to snack first or not; where to eat, either at the comfort of own home or restaurant; with whom, either eating alone or with friends; what to eat, either freshly made or readymade meal; and thus posed a major challenge to the application of a single and simple theoretical model.

Food Choice and Culture

Culture is perhaps the most obvious influence on food preferences and choice, and has strong historical antecedents, rooted in unique combinations of environment (geography, climate, and range of native plant and animal species), ritual and belief systems (religious and secular), community and family structure, human endeavour (innovation, mechanisation, experimentation), mobility (exploration, immigration), and economic and political systems, which are integrated into a range of particular 'traditional' and accepted rules of cuisine and appropriateness, and 'ideals' (Furst et al. 1996; Koster, 2009). A study by Contento et al. (2006) found that food choice is deeply embedded in culture and food carries many different meanings to an individual. Honkanen et al. (2009) suggested that understanding the motives that determine food choice is important for the successful design of promotional campaigns especially the development of effective food and health policies. Upon deciding food choice, immigrants often adopt stages of dietary acculturation in their new environment; for example, preserving traditional foods, reject others, put a new twist on traditional foods and/ or adopt dietary patterns of the host population (Franzen et al., 2009).

Every culture in the world has food system with its own patterns of symbolic meanings (Jamal, 1996). The consumption of food helped consumers expressed themselves and moreover, when ethnic identity became a vital issue, ethnic food is re-created. Jamal's study proved further that through eating ethnic food objects, the feeling of bonding and conformity with their original culture. It was later concluded that ethnic foods have been consistently consumed since migration as learned habits help shaped current food choice and create patterns that are resistant to change (Mennel et al., 1992; Jamal, 1996). Eating foods from home for migrants caused 'memory of homes to linger, recreated in new localities through the medium of food' (James, 1998:91).

The roles of many kinds of social change including migration have been relatively neglected in the food studies (Mintz et al., 2002). It is important to understand the role that all factors played in the food choice process and other aspects of dietary changes, as well as the extent of these changes, to establish an environment of positive learning and healthy lifestyle for international students**.**

Life Course Perspective

The life course perspective (LCP) is a holistic approach examining people's life over time, representing a whole life analysis perspective which originated from the field of sociology (Wethington et al., 2009). The LCP is also an emerging framework in research and educational practice in food studies, especially nutrition. Dubowitz et al. (2007) stated that the relationships between acculturation, life course experiences, social and physical contexts are important in our daily life activity and especially central to the cultural phenomena of diet, food preparation and eating. Devine et al. (1999) discussed how life transitions and changing environment are associated with ideals, identities, and roles in stimulating reassessment of ethnic food consumption and the roles of food in the enactment of ethnicity during acculturation.

Food choices are developed and changed over time, shaped by the environment and over life courses that involves past and current food experience (Sobal et al., 2006). According to Elder (1985), LCP considers a person's agency in determining food choice trajectory, accumulation of experiences over time, the anticipation of future, and the importance of changes in context at specific points in time. There are various food choice models that included the contributions of life course experience to current food choice ideals, identities and strategies in a food context, however, the assumptions that past experiences helped form the current food choice characteristics is often unstated and not investigated (Devine, 2003). Sobal et al. (2006) summarized that the concept of life course and its components provide ways of conceptualizing both dynamic and constant aspects of food choice decisions that are constructed with respect to past experiences, present situation and future expectations. The life course perspective is applied for this study because it provides multiple perspectives in the way people construct food choice decision, taking into consideration the events and experiences, and the situational factors and migration as a turning point in the context of international students.

Methodology

This study employed qualitative methods for the main study. An accompanied shop observation and in-depth interview were adopted, and the data were analysed using thematic analysis. The qualitative approach to explore the food acculturation process using the life course perspective was appropriate and fit with the purpose, aim and objectives of this study. Moreover, this study is concern with the lived experiences of international students when deciding food choice to understand food acculturation process. A qualitative approach is the most appropriate to address the issue. A total of 10 international students studying at a university in Northern Malaysia have volunteered to take part in this study.

Accompanied shop was intended as an opportunity to observe how the students conduct their food shopping. During the accompanied shop session, the researcher followed the participant while they shop for food, observing and taking notes based on an observation protocol developed, focusing on their behaviour when deciding a purchase. Since some of the students chose to do their food shopping at different stores, sites and times, the venue where the observations were conducted varied. The objective of the accompanied shop was to observe the behaviour when making food purchase decision in a new food setting and environment.

A semi structured interview was conducted after the observation. It allowed the researcher an opportunity to understand the behaviour while making food choices during grocery shopping. It also allows the participant's actions to be translated into the form of contextual data fitting the objectives of this study. The interview was also to capture an in-depth explanation, personal

experience, issues and perception as well as to deepen the meaning of the student's food choice practice in the new country.

Findings and Results

Personal factors

Previous studies mentioned personal factors that establish personal food and eating identities which includes; physiological factors (sensory, genetic); psychological or emotional characteristics (preferences, personalities, moods, phobias); and relational factors (identities, self-concept) (Jabs et al., 1998; Bisogni et al., 2002; Sobal et al., 2006). These factors represent self-image as a specific type of eater and operate to shape specific food selections (Sobal et al., 2006). Personal factors that were important to the participants in deciding food choice, such as self-identity, cultural background and religious belief would sometimes restrict their food selection.

Student 1, from China tried to reconnect her Chinese roots and learned how to cook Chinese food when she first came to Malaysia. The strong identity tie help shaped her food choice, which is mainly Chinese food.

'I have to learn to cook by myself the real Chinese food from my own place. I only eat that now' (Student 1)

The relationship with food and culture was also indicated by one participant who perceived assimilating eating patterns with the host country as 'bad', considering how strong the culture identity is within her.

'Because our culture is what we grow up with having this type of food. I would not want foreign food' (Student 2)

It was acknowledged by Finkelstein (1999) that cultural background has very strong influence in eating behaviour. Furthermore, a study by Mintz et al. (2002) established the relevance of food and the food culture as markers of ethnic identity. Retaining the sense of ethnic identity may benefit the functioning of individuals within multicultural societies (Berry, 1997). Bisogni et al., (2002:129) defined the term identity as 'the mental self-images that a person assigns to herself/himself based on everyday interactions with people, groups and objects" which can reveal many cultural, structural, social and individual meanings and that food serves as a tool that people can utilize as a means of confirming and reaffirming identity to one's self, and others.

Familiarity of home food

Collins (2008) mentioned that sojourners such as international students use food as a medium to connect with their home country by creating familiarity and a sense of belonging in their lives. Food plays an important role in international students' attempts at establishing identities especially during transition, which allowed them to connect with the host culture and country of origin. It was found that familiarity of the taste of home country food influenced positive feelings for the international students. Their past experiences of eating ethnic and home country foods established the ideal version of the taste and flavour which signifies the emotional meanings of food that the students carried with them. Words such as satisfying, fulfilling, enjoyable, and healthier as well as comforting were often mentioned to associate emotional attachment and memory of having something familiar, especially ethnic and home country food. One participant described having her ethnic food made her feel like she is home.

'Eating my ethnic food is so comforting because familiar and I know the taste. (Student 4)

Locher et al. (2005) talked about how food objects were associated with the relief of distress and manipulated to modify or change emotional states or feelings. The emotion and comfort felt when eating home country food reflected the social construction of some food objects as 'comfort foods' (Locher et al., 2005); and therefore, suggest the importance of demonstrating how both the social and physiological dimensions of food must be considered in any efforts to understand food choice decision after migration.

One participant recalls trying to make a home country dish because she was feeling homesick and cooking made her think of her mother.

'I tried cooking this food using my mother's recipe. We used to cook together, and it made feel a bit better although she is not here now' (Student 5)

In Collins (2008) study, it was found that international students were reconnecting with their pre-migration lives through the act of consumption and the re-creation of their home country's national dishes to replicate a space reminiscent of home. The act of re-creating ethnic home dishes displays strong connection to the home country by preserving national identity through food.

Food Choice Strategy

The participants also discussed the strategies developed to make their adjustment better and how they adapt to new food choice. One student brought a whole bag of food filled with spices and canned food as she felt she was not ready to adapt to foreign food.

'I have all these food with me in one bag. I must be prepared. I cannot eat the food here I think' (Student 3).

Participants mentioned the need to prepare food independently, which they never did before. Transitions from living with parents to living on their own made them realize the need to manage everyday tasks and acquire certain skills to adapt to new food choice.

'Now I am independent. I cook my food. Not too good but I have to do it. YouTube teach me a lot.' (Student 3).

Acquiring cooking skill was important in the food adjustment process in order to be able to fulfil cravings of ethnic and home country foods and to be able to cook something they prefer. For a few participants, it was difficult in the beginning because they have never cooked before and had to learn and manage this skill independently for the first time in their life.

Dissimilar taste of ethnic and home country food and new food choice is an issue for the participants because food was considered an immediate stress reliever. International students can choose to cook food they were craving for like ethnic or home country food instead of buying ready meals. Through cooking, they would be able to adapt to the new food choice better and moreover, they can choose to cook healthier meals. Brown (2009) mentioned cooking could guarantee both emotional and physical sustenance.

Discussion

It was found that the food choice decision was a complex process among the international students and migration did impact on the construction of the food choice process. The international students' experiences when making food choice during their transition were faced with several challenges such as dissimilar food and culture, unacceptable taste and lack of cooking skills. The element in life course perspective that influences new food choice was very significant. The factors such as culturally ideal food availability and accessibility, resources (the

cost of food and lack of cooking skills), the personal factor (dietary restrictions, self-identity, healthier food) and the context of a new life in a foreign country with new roles and responsibilities in food provisioning practices; all represent most of the elements in life course perspective.

The acculturation strategy conducted such as willingness to try new food, acceptance/ rejection of local food, changes in food choice and habits during transition; demonstrates the international students' acculturation experience. In addition, there are references made about acceptance of new food choice due to previous experience. However, food choice decision was more complex due to lack of competencies in food provisioning roles, but the students embraced much of the new food culture and enjoyed their adjustment experience. The dependencies of ethnic food were apparent due to increased availability and accessibility and the cost of food was not an issue for some students because the new independent life was a chance to discover and try various food choices.

A new food choice system was actively developed as the international students move through life during migration. The continuance of food shopping practice or food preference during migration, influenced by the students' upbringing in their home country, has led to constant patterns of food choice in the new country. However, the students were continuously being exposed to new food choices thus require the students to redefine and reconstruct new way or system of making food choice decision since they moved to a new life, away from home and their family. The trajectories in the new, foreign and unfamiliar surroundings added the stress of constructing a food choice system.

The meanings attached to food consumed during the transition brought different symbols to the international students. The personal, social and culturally ideal foods influenced the continuance of familiar and ethnic food, which is considered an immediate relieve for adjustment stress. It was found that the comfort foods, the staple and ethnic foods, and the nostalgic foods, symbolized emotional attachment, comfort, personal identity and sense of belonging (Collins, 2008; Brown et al., 2010). Findings on the preference and choice to have foods that symbolized important meanings during the transition revealed why some international students were reluctant to change their food choice.

Conclusion

The observed accompanied shop, paired with in depth interview and the adoption of life course perspective, provided a more holistic approach on food choice process among international students. The methods employed enabled the explanation and gave meaningful context of each stage that required food choice decisions; during grocery shopping, food preparation and cooking, and consumption. This study supports that during transition of new life in a culturally different environment; a person will integrate, assimilate, marginalize or separate themselves in order to adjust themselves to the new context. The new life of international students demanded changes and commitment in roles and responsibilities, resources, and context that is disruptive to the usual or established personal food systems and lead to reconstruction of food choice pattern and consequently, food acculturation.

In practical views, the findings from this study may assist the university in constructing a more relevant policy and services that support the food adjustment and differential needs of international students. Identifying the key influences in shaping food choice may improve healthy eating among international students. The findings may inform the international students support

centre and students' counsellors on the food related challenges faced by the international student during the early stage of their transition especially on the adjustment stress concerning food provisioning tasks, undertaking the new roles and responsibilities of a new independent living and guidance and support in managing a healthy lifestyle. The study also benefits other international students (upcoming and existing) in their orientation on food provisioning with focus on addressing the differences in the new culture and create awareness on the expectations.

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THE IMPORTANCE OF NETWORKING AND INTER-AGENCIES COLLABORATION IN HANDLING FAMILY CASES

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Abstract: *Family law area is one of the areas that requires collaboration of experts and practitioners from various discipline. The purpose of this paper is to discuss the importance of such networking and collaboration between various agencies in order to resolve family cases holistically. This is rooted from the understanding that family cases normally involve legal and non-legal issues that require resolutions which are beyond black and white of the law. Some cases involve financial, health or other social issues that call for advice from experts in that area. Based on the library-research and interviews that have been conducted, it is found that family law issues have become a common concern of many individuals and organisations, government and non-governmental, judicial and non-judicial. For judiciary, the networking and collaboration may facilitate and expedite the process of referral, particularly for cases that requires emotional and mental support from counsellors or mental health professionals. For family law practitioners and family support service providers, such networking and collaboration can help the litigants dealing with their legal, emotional and practical aspect of the issues that they are facing. On the other hand, it also helps the agencies gain mutual understanding of each other's role and functions. In addition to that, it may help the disputing parties making an informed decision and prepare for future adjustment to carry on with their parental obligations. Therefore, this paper call for such a networking and collaboration to be strengthened, so that the agencies in concern can pun their joint effort to prevent adverse effects and offer holistic resolution of family conflicts.*

Keywords: *family law networking, inter-agency collaboration, family cases*

Introduction

Family institution in the 21st century is facing more complex legal issues. This include issues relating to marriage, divorce, support and parent-child relationship, problems of child maltreatment, juvenile delinquency, family violence, substance abuse, economic and medical or mental health issues (Babb, 1997) unemployment, relationship problems, health issue, gambling problems, housing and financial problems (Arshad, 2016). Studies have been conducted to show that in dealing with family cases, the available of support service system and collaboration from various discipline particularly legal and social will provide more effective solutions to family problems (Martin & Douglas, 2007; McDonald & Rosier, 2011; and Arshad 2016).

Contextual Definition of Networking and Inter-agencies Collaboration

'Networking' simply means "the exchange of information or services among individual, groups, or institutions" (Merriam-Webster.com). For the context of this paper, reference to the definition of networking has been made to the Independent Review of the Family Law Pathways Network

(2012), which provides that networking means "to come together, to share information and ideas, to make contact and alliances, and to develop a mutual understanding of each other's role." It is further explained, the rationale is that if there are active links between individual and agencies, knowledge and understanding of the services available is improved. This consequently leads to more appropriate and timely referrals.

Inter-agency collaboration occurs when individuals "from different organizations, produce something through joint effort, resources, and decision making and share ownership of the final product or service" (Linden, 2002). Such collaboration can happen in relation to many systems, one of which involved family law and family support services. In this aspect, inter-agency can be explained as "the process of agencies and families joining together for the purpose of interdependent problem solving that focuses on improving services to children and families" (Hodges, Nesman & Hernandez, 1999).

The Importance of Networking and Inter-agencies collaboration

In Malaysia, there are various bodies that are dealing with family matters. Legal matters for Muslims are dealt with by the Syariah courts, whereas for the non-Muslims, it is under the jurisdiction of the civil courts. State Islamic Religious Departments is also carrying out certain regulatory requirements, such as reconciliation process for the Muslims. For the non-Muslims, reconciliation is conducted by the National registration Department. Mediation services are offered by the Malaysian Mediation Centre, whereas legal aid for the eligible person is provided by the Legal Aid Department.

In addition to that, family support services are provided by the Department of Social Welfare. Counselling, therapy and rehabilitative services are offered by the National Population and Family Development Board. There are also numerous non-governmental organizations that offer counselling and various types of family support services. In addition to that, there are hundreds of family law practitioners, private mediators and private counsellors who offer legal and non-legal family services. Therefore, a collaboration between these institutions, experts and professional bodies may enhance the way family cases are handled. The importance of such networking and collaboration can be simplified under the following discussion.

Facilitate and Expedite the Process of Referrals

Among the countries that have their own system to integrate or coordinate legal and social services for families are Australia, England and Singapore. In Australia, this is done by the creation of Family Law Pathways Network (Julie, 2013) and in England it is is known as Community Legal Advice Centres and Networks (Buck and Smith, 2013). Whereas in Singapore, it is under the purview of Community Justice Centre (Official Website of Community Justice Centre, 2017).

Based on an interview conducted with a District Judge of Singapore in 2012, the Family Court of Singapore established strong networking and cooperation with external family service providers. Among the agencies are Family Service Centres, Ministry of Social and Family Development, Singapore Mediation Centre, Community Justice Centre and Community Mediation Centre (Arshad, 2016). By having a systematic networking and inter-agency collaboration, the process of referrals are more exepedient and timely, particularly for situation that needs immediate help such as when a wife and children were thrown out of a home. The Family Service Centre in Singapore conduct counselling session for most family cases, which

include counselling sessions for the perpetretor of domestic violence through referrals made by the Family Court.

The process of referrals also important for continuos supervision and support after separation. Berry, Stoyles and Donovan (2010) commented on the establishment of community-based family relationship centre in Australia by stating that the expansion of such community services is due to the growing understanding of the impact of family separation on children and adolesecent.

Mutual Understanding of Role and Functions

The reason behind the need for collaboration between multidiscipline agencies can be traced back to the inadequacy of substantive family law with the families' real life experiences and the contemporary family legal issues and challenges. Therefore, Babb (1997) has suggested an interdisciplinary approach to resolve family legal proceedings. The interdisciplinary perspective helps judges consider many influences on human behaviour and family life, thus resulting in more helpful solutions to family cases.

There is no single agency that can offer every assistance for every situation. Therefore, through inter-agency collaboration, the functions of every agency can be laid out in details for each other's reference to encourage a joint effort in handling family cases. Samples of networking and inter-agencies collaboration from Australia (Independent Review of Family Law Pathways and Network, 2012) show that parties are provided with complete information on all the relevant institutions that can provide help for their circumstances. Parties and litigants in court are provided with the list of experts and types of services that they offer, such as child care and family support programs (Floyd & Philips, 2013) and family dispute resolution especially mediation services (Caruana, 2010).

Holistic Family Dispute Resolution

Through such collaboration, family law practitioners and family support service providers can help the litigants dealing with their legal, emotional and practical aspect of the issues that they are facing. It means, family conflicts are dealt with holistically, not by focusing on legal issues alone. This also helps the disputing parties making an informed decision about the conflicts that they are facing, particularly by looking at the consequences and future obligations.

It is stated by Berry, Stoyles and Donovan (2010) that the Family Court of Australia has taken an approach to introduce compulsory mediation and post-separation education. This is due to the reason that when parents become tied up with their marital conflicts and separation, the capacity for reflective and higher order thought about interpersonal dynamics decrease, thus they are not very responsive towards children's emotional reaction and needs. The above study also indicated that the post-separation parenting education intervention conducted by the FRC has given significant improvement in parent-child relationship.

It has been suggested that couples should be encouraged to negotiate, bargain and determine their own arrangement of life. This include an attempt to resolve their disputes outside the courtroom. An effective mechanism to support this is by having a centre that focus on settlement of family dispute outside of court such as available in Australia (Rhoades, 2010 & Caruana, 2010) and Singapore (Rajah, 2014 & Arshad, 2016).

Conclusion

The interaction between a man and his family may influence social and interpersonal development of that person. His relationship with families may influence how he represent himself in the society. The networking and collaboration between agencies in handling family cases may help individuals gain their confidence after going through difficult experience and able to give commitment for future arrangements. This requires a holistic family support system that can carry out the missions and objectives. This can be done primarily by changing the attitude towards family dispute resolution, where there should be a sense of togetherness and supportive towards conflict resolution, rather than blaming.

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RIGHT OF ACCESS BETWEEN SURFACE AND STRATUM OWNER IN UNDERGROUND SPACE DEVELOPMENT IN MALAYSIA: AN OVERVIEW

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Abstract: *The scarcity of land has resulted in the construction industry to be creative in maximizing the use of the available land by building it underground. The exploration of underground space has proven to be beneficial as well as posing new challenges. In Malaysia, the amendment of laws such as the National Land Code 1965 (NLC 1965) and the Land Acquisition Act 1960 has provided an avenue for the underground space development to be ventured. However, there are issues which needs to be resolved in order to make underground space development as a sustainable solution for our constrained surface-land development. The issue highlighted in this paper is in relation to provision of access and easement between the owners occupying the same plot of land only at different level of depth. Under the NLC 1965, the provision of access and easement are not automatically created with the alienation of land. Hence, both parties must negotiate their terms of agreement in order to obtain access form surface to underground space and vice versa, thus exposing them forceable conflicts. In addition, the issue of community compensation must be emphasized as the benefits and risks of underground space development affects the community as a whole. In this research, we will examine the current legal framework with the aim to explain the currents land policy on underground space development and propose solutions. From the research, although the legal framework has allowed the creation of ownership of underground space, the law does not provide of provision of access between the owner of surface land owner and stratum land (underground space) owner. Hence, it is very important to have a refined land policy and framework to solve the rights of access and easement between the surface and stratum owners in Malaysia.*

Keywords: Stratum, Underground, Easement, Access, Alienation

Introduction

The scarcity of land and the advancement of construction technology has inspired the shift from conventional view on horizontal surface development to the vertical underground space development (Jamalludin, Zaini, & Hussin, 2016). The underground space development has always been branded as the product of advanced technology, but the fact remains that the technology and its use has fully exploited by people over centuries ago. Myriads fossil records and ancient tools, ancient art, debris and relics suggested complex and structured relationship between human and the subsurface before embarking into a modern lifestyle and environment

that we had today. As basic surviving strategy, the underground's caves and rock shelter protect human being from dangerous weather and climate, and mortal enemies (Council, 2013). The underground space development has been fully utilized since year 1066 during the Normandy's conquest headed by William, Duke of Normandy. Following his coronation, the Tower of London was first built with reliable secret tunnels to transport goods, prisoners or even secret lovers. London as of today, has long depended on tunnels for utilities, transportation, safety and security, and logistics (Admiraal H., 2015). Malaysia has started exploring the use of underground land with the construction of shop lots below Merdeka Square, Light Rail Transit (LRT), Storm Water Management and Road Tunnel (SMART) and the latest addition is the Mass Rapid Transit (MRT) in Klang Valley (Zaini, F., Hussin K., Ariffin A., 2012).

The use of urban underground land has been enhanced with the pressing factor such as global urbanization and growth of population around the world (Zargarian, Hunt, & Rogers, 2013). Half of the world population lives in urban areas and in 2050, it is expected that the figure is more likely to grow rapidly. The increase in population has affected the characteristics of the urban and development growth which often conflicting with the principles of sustainable development. Conventionally, the cities grown by two means, first, they spread wider and bigger. Second, they become denser with the construction of sky-scrapper buildings (Montazerolhodjah M., Pourjafar M., 2015). While urbanization may not be the sole reason for every problem in the cities, certain issues are certainly molded by it. The issues are extreme consumption of resources in certain areas of cities, decline of quality in public health, environment, social and economy. An integrated system comprising of effective and structured use of spaces, infrastructure design and management will benefit the community while preparing the community toward a resilience environment in the future (Council, 2013). The benefits of underground shall not be limited to specific purpose only such as for tunnelling, parking or underground railway as it will dampen its true potential. Its potentiality must be tapped effectively while conforming to the safety procedure for construction activity. Secured space for infrastructure has now been made possible by building it underground such road tunnels, water storage and system (Huan-Quan li, Parriaux A., 2012), pedestrian network, refuge from extreme weather and alternative to high cost of surface land (El-Geneldy A., Kasterberger L., 2011).

While we celebrated the usefulness of underground development, there are issues with regards to the implementation of underground development which warrants discovery and explanations to ensure the viability of this approach as one of the solutions to the scarcity of land in Malaysia. One example of the issues is the concept of access and protection of neighbours in underground space development. National Land Code 1956 (NLC) allows different ownership and usage of surface and stratum land. Therefore, it shall expose these owners to conflicts and disputes as between neighbours occupying the same land only at separate level. Thus, within this background, this research examines the legal framework affecting land issues specifically on underground space development with the goal to strengthen the land administrative policy and promote the expansion of underground space development in Malaysia.

Legal Consideration For Underground Land In Malaysia

Malaysia based its law on the rights of landowner over the claim to the airspace above and the soil below based on the Latin maxim which means whose "whose is the soil, his is also that which is above and below it". The maxim "cujus est solum esy usque ada coelum et ad inferos" connotes the idea of exclusivity which does not limit the claim of ownership of above the surface

land and its below. It did not impose any limitation or restrictions. Under the common law, this principle is used as governing the extent of ownership. However, the maxims have been historically confronted as the legality of common activities are questioned such the flying of airplanes and hanging of crane jibs over on another's land.

In Malaysia, section 44(1)(a) of the NLC 1965 provides that:

> "an owner has the exclusive use and enjoyment of so much of the column of airspace above the surface of the land and so much of the land below that surface as is reasonably necessary to the lawful use and enjoyment of the land,"

The restriction is illustrated in section 44 NLC 1965 where it provides that such rights must be exercised subject to the following limitations and restrictions. It is subject to qualifications under the modern Malaysian land tenure system where a person will not have absolute right only exclusive right on his lands against the third party. The exclusivity enjoyment of land under section 44 (1) (a) NLC is subjected to reasonable use and enjoyment of the land (Ainul Jaria, 2008). The land owner still has the right over his land, and it is manifested by his ability to prevent unreasonable interference or trespass upon his land by virtue of dominant right that the landowner enjoyed due to his ownership of the land (Teh Bee v Maruthamuthu [1977] 2 MLJ 7). Section 44 (1) (a) NLC 1965 provides that the landowner, lessee, licensees under temporary occupation license are entitled to the exclusive use and enjoyment of the land below the surface as is reasonably necessary to the lawful use and enjoyment of the land subject to the provisions of the law under the NLC 1965 and other written laws.

As compared to the surface development, the technology and legal framework for developing and expediating underground space development is considered rather slow (Belyaev, 2016; Lavagno, 2016; Stones & Heng, 2016). As a solution for land-constrained urban problems, underground space development is viewed as an ideal solution, but its aspiration must conform to safe and sound planning, zoning and legal framework as the underground space development is vulnerable in several ways such as its being irreversible, fragile and potentially has the effect of degrading the environment and damaging any archaeological treasures (Sterling & Godard, 2000). As surface land has been densely developed, underground space development should be pursued. Therefore, the coordination of laws and land development policies will support its development and thus benefitting the community and the environment (Barker, 1991). The underground space can be used to as an alternative to the existing above-ground facilities that are not suitable under the current urban setting, or housing new facilities which will optimize the usage of surface area thereby liberating up the surface land area for other appropriate benefits (Montazerolhodjah M., Pourjafar M., 2015). The functions of underground space are traditionally for transportation and for functional infrastructures such as utility network and its facilities (Masuda Y., Takahashi N., 2004). However, the use of underground today space is more varied and extensive.

The concept of underground land was introduced by National Land Code (Amendment Act) Act A752/1990 and was gazetted in 22 February 1990. "Part Five A" titled "Disposal of underground land" was inserted to administer the disposition of underground lands and matters pertaining thereto. The incorporation of Part 5 has made allowed for different uses of land at

different vertical level of land. Thus, within the same land, its surface can be used for commercial purposes while its underground level can be transportation purpose. According section 92A NLC 1965, an underground land means "land which lies below the surface of the earth" while stratum means "a cubic layer of underground land", land identified for the use or purpose which is independence and irrelated to the surface land. the existence of stratum also allows the concept of adjoining underground land which means "underground land adjoining a stratum above, below and on the sides of the stratum". Disposition of underground land can be done using three ways, firstly, through alienation (section 92C, section 92B(1)(a), section 92B (4), section 92(1)(b) and section 92B(1)(a) NLC 1965. Secondly, through approval for independence and exclusive use (section 92(1)(a), section 92B(1)(a), section 92G and 92E (1) (a) NLC 1965. Thirdly, through lease (section 92F(1)(a), section 92F(1)(b), section 92E (1)(a) and section 92E (3) NLC1965.

Problem Statement

The acquisition of land does not automatically grant the purchaser the right of access, right of provision of services or right of support of the existing land or property. There are the matters which are considered as acquired right means the matter to be negotiated between the parties. In Malaysia, an easement or right of passing can only be created by express grant, it must be registered and executed using specific instruments provided for by the NLC. In underground space development, the right of access and service easement must always be established and maintained as to facilitate the construction process and for the ongoing purpose such as maintenance and supervision. The NLC 1965 does not provide for the administration of rights and duties between the owners of both the surface land and the underground land. This position will create an issue of provision of access from underground land to the surface land and vice versa should the distinct owners of this land require the land for maintenance, supervision or refurbishment of the buildings on the land. Although the current legal framework allows for multi-ownerships involving a piece of land, the issue access under the purview of enjoyment of the right and use of the land shall be resolved.

Discussion and Findings

As the use of underground space and its potential has expended, the issues become challenging particularly on the right of surface and underground owner especially on the issue of access to the underground land from the surface land (F.Zaini, K.Hussin, 2017; F.Zaini, K Hussin, NA Jamalludin, S Radioton, 2015; Kamal, 2011; Sharidan, 2011). The willingness of owner to bring in another person in their property is a vital characteristic to the system of personal property. By expansion of society, the property has been used as a social tools to create interactions thereby clothing the owner with certain social obligations (F.Zaini, K.Hussin R.Suratman, 2013). Traditionally, under William Blackstone's concept of property, a right to a thing against the world suggests the inclusiveness of ownership of a person without the recognition of right of others. However, with the passage of time, the right of inclusiveness has diversified as inclusion of others can take form in lease, license, trust over the property. This is possible to be done with the creation of law and policy which deter against opportunism by a person such as in the case of squatters on an empty land (B.Kelly, 2014). In the underground space development, the question often arises as to what extent the surface land regulations should be applied taking into consideration the inclusiveness of one's ownership over a land (Barker, 1991; Kaliampakos & Benardos, 2008).

In Malaysia, after the coming of NLC1965, the law on right to easement and support is no longer based on the doctrine of the presumption of a lost modern grant. An easement is a right given to the dominant landowner to use the land belonging to servient land owner. Previously, under the English Common Law, an owner does not have the right of support for his building. The right can only be conferred to him by grant or prescription (of uninterrupted support for 20 or 30 years). Based on the NLC 1965, the creation of underground land does not automatically create or grants the stratum owner the right of provision of easement and access (Ahmad Nazri, 2018). In discussing the right of support under the current legal framework, reference can be made to the Federal Court case in Wong See Lee & Ors v Ting Sik Ling [1997] 2 CLJ 205 and followed by the latest case of Lim Kuoh Wee & Anor v Chan Ah Hah [2017] MLJU 2099:

> "The fundamental principle on which the decision in Backhouse v Bonomi 9 HLC 503 proceeds is, that no cause of action arises in respect of what a man does on his own land, until actual damage arises therefrom to the property of the adjoining owner. According to that decision there is no abstract right of support, independent of acquired easement, from adjacent strata, and the removal of such strata constitutes in itself no wrong. No wrong arises to A, from the excavation of B, on his own soil though the stability of A's sustains actual damage therefrom. And the reason is that the law does not recognize any right in A, to support of the adjacent soil, otherwise than as involved in the larger proposition that he is entitled to the enjoyment of his own property undiminished and unaltered by any use which B may make of his. B may use his own property as he pleases, provided in so doing he does not do actual damage to his neighbour's property or diminish or disturb his neighbour's enjoyment of it"

From the discussion above, it shows the right of support is negative in its nature. It does not accord landowner a right of support from the adjoining property. The negative right merely gives right to the landowner if the existing support from the adjoining property has been interfered with or lost (Ainul Jaria, 2008). Therefore, the underground land owner does not automatically has the right of access, right of provision of services and right of support of the existing building (Zaini, Hussin, & Raid, 2017). These rights are considered as an acquired right, it means the matter must be negotiated independently between the parties. Once the rights are established, it can be used by the right holder against another third party. In considering the fact that rights of access are not simultaneously created during the alienation of underground land, the adjoining landowners have to negotiate and arrive at a conclusion on the creation of easement and access between them. It must be executed in an agreement and supported with valid consideration (Kadouf, 2003; Teng, 2011) . In line with section 282(1) NLC 1965, an easement can only be created by express grant, its registration must be completed by using specific instrument of Form 17A to enable the rights be formalized and endorsed in the grant title (Mei, 2005).

The right of access and service easement is a focal consideration and must always be established and maintained as to enable the construction process and for the continuous purpose such as maintenance and service (F.Zaini, K Hussin, NA Jamalludin, S Radioton, 2015). In other words, the stratum owner must deal with the surface owner to obtain access from the surface land

to his underground facilities or buildings. This issue has been reflected in MRT Corp's experience (the developer of the Klang Valley Mass Rapid Transit (MRT) Project) in dealing with the surface land owner in constructing Sungai Buloh-Kajang MRT's line and Sungai Buloh-Serdang, Putrajaya MRT's line. The win-win deal initiated by MRT Corp has allowed the surface land owner to retain the ownership of the surface land while allowing the co-existence of underground rail beneath through a mutual agreement between the affected surface owner and MRT Corp (MRT Corp, 2017)

The downside of this arrangement lies with the issue of equal bargaining power since the relationship is based on the concept freedom of contract, in which there are possibilities that the parties to the contract does not stand in the foot of equal bargaining. In desperation to have a mutual agreement, this problem is acute if the terms of the agreements are not entirely agreed upon (Alias SA, 2012; Lonegrass, 2012; Trakic, 2016). Unbalanced bargaining power to the contract and inaccessible information on the subject matter of the contract will dampen the very intention of negotiation between the parties. Hence, the parties will resort to typical standard agreement (Arnott.R, 2013). There are possibilities of incidents which may occur out of which cannot be foreseen during the execution of the contract, resulting in the incomplete and insufficient redress to both parties. In the contract such as development contract which does not allow for termination or cancellation, a variation to contract is justified when the benefits of both parties increased. The contract should contain the principle of risk sharing while addressing the apportionment of accountability in the event of risk management and financial capabilities of the parties affected (Kobayashi K., Omoto T., 2006)

In dealing with this issue, it is also been suggested that the law on compensation for the use of easement or holding rights shall be instituted and expended due to the increased risks, its effect to environment, and the difficulties in mortgaging the underground land and spaces (Narvi, Vihavainen, Korpi, & Havukainen, 1994). The principle of compensation shall be expended to be take into account the valuation of the communities' losses. The "Human cost's factor" is left out when considering the market value of the property to the community thus reducing the dissatisfaction felt by the community caused by improper handling of compensation procedures (Lee W. C., Viswanathan K.K., 2016).

Conclusion

Underground space development offers various potential benefits with greats challenges to solve such as in planning, operating and maintaining so as to make it as a sustainable development. Strong development of underground space will influence the changes of law of ownership affecting underground. Currently, the law and remedies governing the underground space development on matter of right to access between the surface and stratum owner is based on contractual arrangement as the provision of access must be privately negotiated and agreed between the parties. Responsive steps must be taken to regulate and reconcile the right of the surface and stratum owners together with the strong support from planning authorities for efficient underground space development. It is suggested that inclusive legal procedures and mechanism must be enacted to balance the rights of both parties as its failure will jeopardize the safety and usefulness of underground space development. A broad solution must combine the advance of available construction technology with the comprehensive legal framework and planning policy relating to the development of underground land.

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THE FUTURE OUTLOOK OF CHILD SEXUAL ABUSE IN MALAYSIA: MONSTER IN THE FAMILY, YOUNGER AGE VICTIMS AND ISSUES ACROSS BORDERS

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Abstract: *This paper analyses the insights of the child sexual abuse (CSA) history in Malaysia: its early acknowledgement since 1980s; the trend of CSA brutality and its seriousness; and the future of CSA gory outlook and its implications. Although sexual abuse issue is argued to be existed even before 1980s; this issue was more evident in late 1980s and 1990s due to high rural-urban migration to the city, particularly in Kuala Lumpur. The trend of sexual abuse issue during that time mostly involved women or teenage girls as victims. Similarly, during the same period, the number of CSA in Malaysia began to rise, which involved children below 18 years old. Notably, the trend of CSA in Malaysia has changed which marked significant patterns to ponder: (1) the increase of CSA cases involving young age groups (below 12 years old); (2) the increasing number of incest cases involving siblings (children as offenders); (3) the increasing number of boys as victims of CSA; and (4) a high indication of paedophila issue involving children and perpetrators across borders. This shows the complexity of CSA in terms of its sequence, seriousness, and its impact (breadth and depth) on the victims, family and society at large. The current and future scenario of CSA urged Malaysia to take immediate attention to tackle this issue holistically, beginning from tackling the root causes of the issue, followed by formulating best mechanisms to address this issue effectively.*

Keywords: *Child sexual abuse (CSA), evolution, trends, complexity*

Introduction

The issue of child abuse, in particular child sexual abuse (CSA) is a long-standing issue which sometimes is considered as a very complex issue to solve as well as to deal with. Many literature suggested that children have been the victims of cruelty by adults throughout time (Smith, 1975; Goddard, 1996; Kempe & Kempe 1961). Despite that, literature proved that the issue of child abuse and child sexual abuses have only been acknowledged since 1970s (Kempe and Kempe, 1961); yet, many argued the complexity and difficulties in dealing with the issue. CSA is a form of child abuse which can be considered as one of the serious forms of abuse that lead to a wide range of ramifications. For this reason, the authors took an initiative to discuss child abuse issue in international context, followed by the early acknowledgement and evolution of the CSA issue in Malaysia. Further, the issue of CSA in Malaysia is contextualised based on the development,

modernisation as well as urbanisation in Malaysia which have significantly change the culture, environment and lifestyles of Malaysian citizens—this has indirectly affected the society, family and their children. Finally, the main proposition of this paper is presented as the future outlook of CSA in Malaysia: increasing trend of incestuous issue (monster in the family); growing number of younger age victims and boys as victims of CSA; and CSA issue across borders.

The Early Acknowledgement of Child Abuse Issue in Malaysia and Policy Measures

The early acknowledgement of child abuse including CSA in Malaysia was evident in 1970s, following the influential work of Kempe and his associates in 1962. The first article entitled: 'Battered child syndrome in a Malaysian hospital' was published by Hwang, Chin and Leng (1974) in the *Medical Journal of Malaysia*. Since then, the issue of child abuse in Malaysia has begun to be acknowledged by relevant parties, particularly those who deal with the issue directly. Subsequently, in 1985, the Suspected Child Abuse and Neglect (SCAN) Team was set up in the General Hospital Kuala Lumpur (GHKL) with the objectives of identifying all cases of abuse seen at, or admitted to, the various wards of hospital, and at the same time to devise ways to prevent the recurrence of abuse (Kasim, Mohd. Shafie & Cheah, 1994). However, most of the child abuse cases reported by SCAN Team during that time only represented the low-income group. This was due to the nature of governmental hospitals such as GHKL, where SCAN Team has been placed, were mostly approached by low-income citizens. Hence, the number of child abuse cases among the higher income groups were not covered by SCAN Team. Subsequently, the reported number of child abuse cases involving physical, sexual and neglect identified by SCAN Team were 766 cases, between 1985 and 1991 (Kasim, Mohd. Shafie & Cheah, 1994).

In response to the increasing number of reported cases by SCAN Team, between 1985 to 1991, the Malaysian government enacted the Child Protection Act 1991, which included mandatory reporting for medical practitioners, including medical officers, to report abuse cases seen at their hospitals or clinics, either confirmed or suspected (Kasim, 2001). In 1990s, the number of reported child abuse cases continued to increase; and this led to the enactment of Child Act 2001. The enactment of Child Act 2001 was the subject of significant focus in the Eight Malaysia Plan (2001-2005). The recent and on-going act, the Child Act (Amendment) 2016 was gazetted on 25th July 2016, concentrating on four main amendments: child registry, community service order (CSO), a family-based care, and heavier penalty (*New Straits Times*, 26 July 2016).

While SCAN Team is under the management of Hospital, which mostly involves pediatricians, medical officers; another two initiatives were undertaken by the Malaysian government to deal with child abuse issue effectively. There was a clause in the Child Protection Act 1991, which required the establishment of Child Protection Team; however, only in 2001, the Child Protection Team, began to function properly (Ahmad, 2018). This followed the amendment of Child Act 2001. Similarly, the Child Protection Unit under the management of the Royal Malaysian Police (RMP) was established in 2001. The unit was renamed to Child Unit in 2015 (Ahmad, 2018).

In terms of policy, the Malaysian government through the Ministry of Women, Family and Community Development (MWFCD) has formulated Child Policy 2009 and Child Protection Policy 2009. These two policies are in line with the principles of the Convention on the Right of the Child (CRC). Malaysia rectified the CRC in 1995; however, the first report was submitted to the Committee of the CRC in 2006 (Ahmad, 2018). The issue of child abuse in Malaysia was highlighted as one of the national agendas since the Seventh Malaysia Plan (1996-2000). The

recent and on-going plan continues to emphasise on upholding the needs and interest of children by improving protection against abuse, abandonment, neglect, as well as an increasing educational outcome for underprivileged children (Eleventh Malaysia Plan, 2016-2020).

Child Sexual Abuse in Malaysia

According to Kempe and Kempe (1978), child sexual abuse (CSA) refers to sexual exploitation of children through actions such as incest, molestation and rape. Since the early work of Kempe on child abuse, the evidence has shown that cases reported until the 1970s only represented a fraction of the total cases: many sexual abuse cases went unreported. During that time, incest and other forms of sexual abuse of children are argued to cause strong feelings of revulsion or disbelief among people. Kempe and Kempe (1978) suggested that these are the same feelings that have caused professionals to shy away from the problem of sexual abuse, resulting in underestimation of its extent and severity. However, in order to highlight and understand sexual abuse better, the problem should be dealt with as openly as physical abuse, which at one time seemed just as abhorrent.

Similar to the international context, CSA in Malaysia was not acknowledged until 1990s, although the recognition and acknowledgment of physical child abuse emerged in Malaysia around 1970s. According to Singh, Yiing and Nurani (1996), the awareness of CSA began to increase in Malaysia after the 3rd Asian Conference on Child Abuse in 1993. Subsequently, the first paper about the subject of CSA in Malaysia was published in the international journal *Child Abuse & Neglect*, authored by Kassim and Kasim (1995). In their paper, the authors discussed 101 confirmed cases of CSA recorded by the SCAN Team between June 1985 and December 1990. From these 101 cases, six girls aged between 12 and 16 years old were found to be pregnant. Malay victims recorded the highest number of cases (50%), followed by Indians (24.7%) and Chinese (24.7%), and the remaining (1.9%) were other ethnicities. A large majority of the cases involved girls as the victims (93.9%), with boys comprising eight of the CSA victims (Kassim and Kasim, 1995).

Subsequently, the number of reported CSA cases in 1993 increased to 75, more than double the number of CSA cases in 1992 (31 cases). It was suggested that this significant increase was due to the increasing number of people who were willing to report CSA, particularly doctors and medical officers, as well as teachers and welfare officers (Johari, 1994). The rising number of reported cases could also be suggested due to the implementation of the Child Protection Act 1991, which obligated doctors and medical officers to report child abuse incidents referred to their hospitals. Despite that, doctors working with the SCAN Team at that time claimed that there were difficulties in making a diagnosis of CSA, especially if victims were below five years old and if there was a lack of physical evidence. Furthermore, it was also suggested that sexual abuse is a very difficult and uncomfortable issue to discuss, thus leading to greater reluctance of disclosure among a majority of the victims (Johari, 1994).

Since then, the number of reported CSA cases had continued to increase annually. A dramatic increase nonetheless has recently occurred. The Department of Social Welfare recorded a total of 767 cases in 2009; the number then increased to 866 cases in 2010 (Department of Social Welfare, 2010). Report by the Royal Malaysian Police also showed an increase as the number of 3,631 CSA cases recorded in 2007, increased to 4,063 cases in 2010. Out of the total number of reported CSA cases in 2010, majority were rape cases (65.4%), 23.5% involved cases

of molestation, 8% were incest, and the remaining cases were classified as unnatural intercourse, which included cases of sodomy (Royal Malaysian Police, 2010).

Definition of Child Sexual Abuse (CSA)

WHO and ISPCAN (2006) define the sexual abuse of a child as: 'The involvement of a child in an activity that he or she does not fully comprehend and is unable to give informed consent to, or for which the child is not developmentally prepared, or else that violates the laws or social taboos of society. Children can be sexually abused by both adults and other children who are by virtue of their age or stage of development—in a position of responsibility, trust or power over the victim.' According to Corby (2006), the issue of defining sexual abuse in practice is both complex and problematic. There is much more agreement between child health and welfare professionals about the seriousness of child sexual abuse and about the importance of intervening to protect children from such abuse.

According to Kassim and Kasim (1995), the definition of child sexual abuse varies from one place to another, depending on the culture, values, and beliefs of the individuals in a community or society at large. In Malaysia, the law against sexual child abuse is enacted under Section 17 (2) *(c)* of the Child Act (2001) (Act 611), which states:

> A child is sexually abused if he has taken part, whether as a participant or an observer, in any activity which is sexual in nature for the purpose of –
> (i) any pornographic, obscene or indecent material, photograph, recording, film, videotape or performance; or
> (ii) sexual exploitation by any person for that person's or another person's sexual gratification.

The classification of different types of sexual abuse towards a child is further referred to in the Penal Code (Act 574) of Malaysia, which is divided into three separate sections that cover rape (Section 375), incest (Section 376A), and unnatural intercourse (Section 377).

The Future Outlook of Child Sexual Abuse in Malaysia

Although Malaysia only began to acknowledge CSA in 1990s, it can be argued that CSA issue had occurred many years ago. There was a possibility that even before the early international acknowledgement of child abuse in 1970s, CSA might have occurred in many countries; yet, it was not disclosed nor acknowledged as CSA during that time. In Malaysia, the academic discourse surrounding CSA issue has undergone significant changes; following the international influence as well as the changes in the context, environment and culture in the country. For this reason, this paper argues that the discussion on CSA issue in Malaysia can be categorised into four phases:

Phase 1: Before 1990s – CSA was poorly recognised and acknowledged.

- **Phase 2: 1990-2000** – CSA was mostly among older age children (teenagers: 12 years until below 18 years old), they were mostly female/girl victims.
- **Phase 3: 2001-2015** – The growing number of CSA involving younger age children (12 years and below), growing number of incest cases, and growing number of males/boys as victims.
- **Phase 4: 2016 and future** – Growing number of incest cases, CSA issue across borders: paedophilia, child pornography, child trafficking for sexual exploitation and others.

Based on these four phases, this paper argues that the future outlook of CSA in Malaysia involves: many perpetrators are among those known by the victims (monster in the family); growing number of younger age victims; and CSA issue across borders. Notably, this trend is not only observed in Malaysia—review of the relevant literature proves that the future outlook of CSA in Malaysia is consistent with the international trend. This follows the influence of the country's development, modernisation, urbanisation, technological advancement and other contributing factors.

Monster in the Family

In discussing about perpetrators of CSA that involved fathers, mothers, siblings and others who lives under the same roof, or among those who known to the victims; this type of CSA is related to incestuous issue. Incest is one form of CSA that is considered as a very complex issue to understand as well as to deal with. Incest issue has existed many years ago; however, not many people are willing to acknowledge it due to fear of destroying family dignity and feeling of shame. In a study undertaken by Kluft (2011), the issue of incest in the United States has been reported since 1975. During that time, incest was mostly referred to "father-daughter" incest, which happened one in a million families (Henderson, 1975). Within eleven years, incest cases had increased tremendously. By 1986, incest cases involving "biological fathers and daughters", was found approximately one in 20 families; and cases involving "step-fathers and daughters" happened one in 7 families (Russell, 1986). Notably, incest involving "mother-child" has been discussed by researchers since 1980s (Kendall-Tackett, 1987). In the case of mother-child incest, the victims aged were mostly younger. According to Courtois (1988), abuse often starts in infancy and continues for 6 to 11 years. Meanwhile, Peter (2009) stated that abuse often starts under the age of 9 years.

Another form of incest issue that was least recognized in 1980s was "sibling sexual abuse", which in comparison to "sexual abuse by related adults in a family", received more attention (Balantin 2012). According to Finkelhor (1980), the story of sibling and paternal sexual abuse is far greater than acknowledged by official statistics, policy makers and service providers. For this reason, victims of sibling sexual abuse continue to remain unseen; yet, waiting to be found and helped (Balantin, 2012). Although arguing that the prevalence of sibling sexual abuse in America was not well-documented; Finkelhor (1980) suggested that the rate of "sibling incest" may be five times than the rate of "parent-child sexual abuse". Many sibling incest cases were argued to be under-reported, remained undisclosed and unaddressed due to many reasons such as: victims often did not think they were victimized; families and professionals failed to recognize the abuse; the secret remains hidden as it was camouflaged by play and tangled in the complex dynamics of abuse sibling relationships (Balatin, 2012). Following the seriousness of incest issue, many scholars and researches who were also feminist, traumatologist and others have given attention to vigorously study incest issue and its ramifications since 1990s (Kluft, 2011).

In one of the recent articles, incestuous relationship between male and female sibling younger than 15 years old resulting in pregnancy is one of the serious issues in Turkey (Karbeyaz, Toygar & Celikel, 2016). According to the authors, among the contributing factors to this issue were: fragmented family, lack of education, socio-cultural characteristics, low socio-economic status and lack of education on puberty and sexuality. Following their empirical research; the authors agreed that the previous trend of incest involving older male in the family

who sexually abused the girl, had changed to the present trend which involved brother and sister, which better known as sibling incest. The reason for this sexual relationship is due to curiosity, and desire to learn each other's sexuality (Karbeyaz, Toygar & Celikel, 2016).

Similar to the international context, incest in Malaysia is argued to have existed many years ago. However, not many are willing to acknowledge this issue which can be considered as a very taboo issue to discuss. Research on incest in Malaysia is also limited and many parties unwilling to discuss the issue openly. One of the studies on incest in Malaysia which involved young victims discovered that there were three emotional reactions of incest behaviour: sadness and crying; stable condition and absence of grief accompanied by shame and frustration over the incident (Ahmad and Nasir, 2010). However, the reaction and trauma were found different between one victim to another. Further, the differences in the intensity of the human experienced by the victims depend a lot on the various roles they play in the relationship with the perpetrators. Due to that, many of the victims suffered with trauma where there were victims who tried to commit suicide, having sleep disturbances, consumed alcohol, smoked, and many others (Ahmad and Nasir, 2010). Further, another recent empirical finding from Ahmad (2018) revealed that Malay society refused to acknowledge incest as form of CSA, compared to illegal sex between consensual adult. Thus, no action taken by the society to report the incestuous case; yet, they choose to report illegal sex by the adults. Both cases are illegal, yet, the imbalance actions taken by the Malay community may lead to bigger problem.

In one of the recent newspaper articles published by the *News Straits Times,* stated that the number of incest cases is considered serious in Malaysia. Although the number of reported cases decrease from 304 cases in 2014 to 253 cases in 2016; however, the investigators claimed that the number still remain high. The statistics show that the top offenders of incest cases in Malaysia are father, stepfather, uncles and brother (*News Straits Times,* 30 June 2017). In supporting the front-page news on "Incest number is worrying" a real story from Rania (not the real name) who admitted has been sexually abused by her brother when she was 10, provides important question for Malaysian to ponder. The perpetrator who was her only brother, told her to lift her dress and he will put something in her, which Rania thought it was a fun game, is the beginning story of her raped life. The rape carried out for more than two years. Since she realised that it was not just a game, she stops the sexual abuse. But until now (aged 25), she never shares about this story to her parents or anyone (*News Straits Times,* 30 June 2017). This is an example of unreported sibling-incest cases, which can be argued to be higher than reported cases. Due to that, police officers and forensic criminologist stated that it is vital to teach sex education in school so that the children can differentiate between a 'good touch' and a 'bad touch'.

'Sibling-incest' in Malaysia is growing, and the seriousness of this issue should not be underestimated. The impact of the abuse to the victim can lead to the whole life trauma, mental illness and committing suicide. The damage to the victim's health and mind is devastating. They may continue to live in trauma, isolation, difficult personalities, unable to cope with their family lives and sexual relationship. As the technology continue to advance, many children are exposed to many sexual materials, they may use their own siblings as their target to fulfil their sexual desire. The bigger problem that Malaysia like other countries should realize is whether sibling incest relationship is regarded as 'child's play' by the victims; create 'pleasure' when they began to accept it; or it is considers as a 'pain' in their unimaginable life.

Younger Age Victims and Boys as CSA Victims

According to Lowen (2018), child sexual abuse is considered as a devastating crime whose victims are those least able to protect themselves, and most likely to be abused repetitively by the perpetrators. In the United States for example, almost 90,000 cases of child sexual abuse (CSA) are reported each year. Despite that, many CSA cases went unreported because child victims were afraid to tell anyone about what happened to them, and legal procedure in validating an episode is difficult. Further, as estimated 25% girls and 16% boys experienced CSA before they turned 18 years old. And of all victims of CSA in the United States, 67% were under 18 years old, 34% were under 12 years old, and 14% were under 6 years old (Lowen, 2018). This shows that the number of younger age victims of CSA are increasing, hence marking the seriousness of CSA in the world.

The statistics of child abuse cases in Malaysia in 2009 involving victims aged 12 years and below were 1,797 cases (out of 2,789 cases) increased to 2,067 cases (out of 3,257 cases) in 2010. Further, the total number of child abuse cases involving children aged 3 years and below were 629 cases, which were approximately around 21% of the total of 3,257 child abuse cases in 2010 (Department of Social Welfare, 2010). In term of CSA, the Department of Social Welfare Malaysia reported that the total number of CSA had reached 22,234 cases between 2010 and May 2017 (Utusan Online, 28 July 2017). Although the statistics show that the victims of CSA among boys were only reported less than 8%; the recent trend revealed a worrying scenario—a significant increase in the number of reported CSA cases involving boys from 56 cases in 2016 (out of 1,038 cases) to 118 cases in 2017 (out of 1,397 cases) (Department of Social Welfare, 2013-2017). This trend is particularly related to incestuous and unnatural intercourse cases (sodomy) involving children. Notably, within seven years period (2010-May 2017), the total number of reported cases of incest in Malaysia were 1,796 cases; and 1,152 unnatural intercourse cases (Utusan Online, 28 July 2017). The increasing number of younger age and boys as CSA victims in Malaysia is consistent with the international trends (Lowen, 2018).

There are many reasons for perpetrators to target younger age children as their victims. The first reason is: the younger the age, the most vulnerable for the children to be abused. This is mostly seen in the physical child abuse cases. However, recently, this trend is also seen in CSA cases. Although many could argue that the younger age children may not show high attraction to the perpetrators; yet, the younger age are the easiest targets for the perpetrators to unleash their sexual desires. This is supported by a research done by Lang, Rouget and Van Santen (1988) which revealed that the smaller, lighter, and least sexually mature children who appear to hold the most attraction for sexual abuse perpetrator. Further, younger age victims usually are easily groomed by adults, especially the closest to them. They have high trust on their fathers, mothers, siblings, grandfathers, uncles; even some children are very closed to their neighbours. With trust, younger age children are mostly unable to differentiate what is right or wrong. They mostly keep the secrets to themselves especially when they are told to; until they are asked or forced by their parents to inform what has happened. In some situations, parents don't believe their child stories, with the assumption of their children may have wild imagination. This is especially when perpetrators are family members known to be good persons in the family. The second reason is: investigation of CSA involving younger age victims is difficult to prove. In other words, the main challenge in investigating CSA cases involving younger age victims is to encourage them to disclose what they have experienced. Many victims do not recognise that they are being abused, until much later, often when they are adults (McNeish & Scott, 2018).

CSA Issues Across Borders

The implications of globalisation, modernisation and technological advancement has changed the landscape of CSA issue in many parts of the world. In today's era, children are not only exposed to be abused in physical reality, but they are also exposed to be abused in the virtual reality without knowing by anyone including their parents. It is agreed that the technological advancement provides a wide access to information and medium of communication to people around the world—"everything is just at the fingertips". Sexual predators often misuse the internet to prey for victims, especially among younger age children. In other words, the internet has opened up more opportunities for non-contact sex offending (Meridien et al., 2011). Communities, societies, families or even parents may not realise that they are among the critical actors who unintentionally expose children to virtual CSA such as paedophilia issue and child pornography.

The rising number of paedophilia cases as well as child pornography materials mark a significant worrying situation. Literature revealed that the trend of children's photos and videos were massively traded among paedophiles around the world has existed since 1900s (Stout, 1998; Bocij, 2004; Casciani, 2011; Embury-Dennis, 2016). During that period of time, the internet was widely used in developed countries such as the United Kingdom, Australia, Austria, Belgium, Finland and many others. Due to the high accessibility to people around the world, these 'silent monsters' took an advantage to unleash their sexual desires on children. The establishment of the paedophile rings such as the Wonderland Club (Stout, 1998; Bocij, 2004), boylovers.net (Casciani, 2011) and Dark Room (Embury-Dennis, 2016) left the life time nightmares and unbleached scars among the abused children. More than hundred thousand of children's photos and videos depicting children suffering sexual abuse were discovered during that time.

Ironically, paedophilia and child pornography issue do not only occurred in the western and developed countries, but these issues have also become prevalent in developing and poor countries including Malaysia. In 2014, Malaysia was awakened by a devastating case of Richard Huckle who committed series of rape and abuse cases involving 23 Malaysian children aged between 6 months to 12 years old (The Star, 2016). Some of them were raped (14 charges) and others were sexually assaulted (31 charges). In the worst-case scenario, Huckle uploaded the pictures of abused children into a website known as True Love Zone (The Star, 2016). Based on the above discussion, the cases related to paedophilia and child pornography portray the complexity of CSA issue in today's world. Children are becoming extremely vulnerable as they are exposed to be abused at anytime and anywhere. Thus, the CSA issue across border requires a serious attention from various parties, including government agencies, non-government agencies, community, society, families as well as parents.

Conclusion

This paper concludes that the complexity of CSA issue in Malaysia as well as in other countries continues to increase due to the challenges faced by the world. Globalisation, urbanisation and modernization continue to be the threats to the country's development, particularly in promoting protection, security and privacy of children around the world. While, all relevant parties including doctors, medical officers, police officers, social workers, legal officers and many others have undertaken necessary efforts and actions to deal with CSA issue effectively; the global challenges continue to affect the complexity of CSA. This can be seen in terms of CSA sequence, seriousness, and its impact (breadth and depth) on the victims, family and society at

large. The future outlook of CSA in Malaysia as well as in other countries must be predicted beforehand, so that the country could be ready with proactive and preventive measures to deal with the complexity of CSA issue involving their community and other countries. The current and future scenario of CSA in Malaysia urged the country to take immediate attention to tackle this issue holistically, beginning from tackling the root causes of the issue, followed by formulating best mechanisms to address this issue effectively. Malaysia like other countries needs to be more vigilant in protecting their children, secure them from abuse and neglect, and promote their privacy, in line with the principles of the Convention on the Right of the Child (CRC).

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INNOVATION MINDSET MODEL AT THE EARLY STAGE STARTUP WITH BERKELEY INNOVATION INDEX APPROACHED

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Abstract:
On a global scale, Indonesia has been ranked fourth for possessing a rather large number of Startups with total of 1.559 startups, but many startups fail within their first year due to lack of any new ideas. Because of changing dynamics and instability in the economy, firms have come to recognize that their future survival and competitiveness depend on their capability to understand, respond and react to changes or shifts related to the firm's environment, or what can be categorized as innovation-related activities. Purpose of this research is to discover the innovation mindset model and the factors that influenced at the early stage startups in Indonesia. In this research, the presenting data and the method used is descriptive qualitative. The unit analysis of this study were startups digital with minimum running at validation phase, early stage and bootstrapping criteria and the informants were Top Management Team (TMT) level known as founder or co-founder who convey optimism and consistently manage the resources for innovation that will lead to successful innovation. Data were collected by triangulation technique which is Berkeley Innovation Index (BII) questionnaire to measure innovation mindset index with 6 constructs- Trust; Believe; Resilience; Perfection; Diversity; Collaboration. Then, conduct a quick response statement, and the last is interview based on BII constructs. The result of this research produced the personality traits model, this model overview of how to get higher propensity to innovate at the early stage digital startup. As a conclusion from the model it delivered 4 propositions about the propensity to innovate by individuals.

Keywords: *Innovation Mindset, Early Stage, Digital Startup, TMT, BII*

Introduction

Todays, the startups with their digital innovation have been vital to a country's economic activity level in term of the expansion and creation of jobs, helping the civilian labor force. Moreover, it also improves a nation's technological advancements for future development and growth of the economy. Researchers admitted that digital innovation does play an important role in the growth of nation's economy (McGuirk, Lenihan, & Hart, 2014; Amore, 2015; Giardino, Wang, & Abrahamsson, 2014). On a global scale, Indonesia has been ranked fourth for possessing a rather large number of startups, totalling up to 1,559 (startupranking, 2018). A startup is defined as successful once it reaches the "Unicorn" stage, when it becomes valued at over $1 billion USD. In the context of Indonesia, it can be said that local startups successfully attract the

attention of global investors. As seen from the Crunch-base data in 2018, it mentioned that Indonesia already has four startups with the status of "Unicorn".

Although unicorn startups in Indonesia are on the rise, the development of new startups have declined over the past years. From TechinAsia, a media that monitors the development of startups, indicated how the numbers of established startups have been generally decreasing over the last few years. To start and close a business is an ongoing process, and the startup failure rate can also reach 90% (Koster & Hans, 2017) In other words, the possibility of failure is more certain than the possibility of success, and then there have been various ways to minimize the possibility of such failure. Stages of programs such as incubators, accelerators, co-working space and government initiatives have actually been done in order for startup actors to flourish. However, it does not seem to have proven results with the number of startups that also automatically lower funding a startup. Though it is known that many agencies both local and global that provides funding assistance at startup. According to the insight of 42% global startup failure is a product that is needed by the market (CBInsights, 2017). In line with what was presented by Alyssa Maharani from Digita Raya, many startup failures are in the product market fit (Putri, 2018). Then, it is very unfortunate that this happens mostly at startups that have just started pioneering.

Things that need to be owned and developed for the sustainability of any company including startup is innovation. It needs to be seen as the most important variable to create competitive advantage so as to promote economic growth (Sidhu, et al., 2016). Whether or not a company puts innovation above other priority interests, without the right innovation metrics, the company would not improve. At the same time, they have a large number of metrics to measure things from profitability, inventory turnover, payback and more but not to measure innovation. Innovation, as a competitive economic factor, is a process that requires continuous management, development and control (Solomon, 2016). Therefore, an innovative company needs to measure its innovative ability to be in good company state. In the midst of a world that encourages continuous progress without the ability to innovative an organization or individual will suffer huge losses (Sidhu, et al., 2016). Innovation is synonymous with introducing novelty (Amar & Mullaney, 2017), and this relates to creativity to generate useful ideas (Sarooghi, Libaers, & Burkemper, 2015). Innovative is positively related to the performance of startup companies (Hyytinen, Pajarinen, & Rouvinen, 2015). This startups are required to focus on creating innovative products or services (Giardino, Wang, & Abrahamsson, 2014) and introduce novelty with limited resources. To reach continously innovation, the ability to innovate of individuals is believed will add the value of startups. Individuals also become frontline guards who move organizations to learn from external sources and then contribute to the company's innovation strategy.

Therefore, the successful of early stage startup is very dependent on the role of the founder and co-founder who are in the Top Management Team (TMT), because the trustable TMT level can convey optimism and consistently manage the resources for innovation that will lead to successful innovation (Kuczmarski, What is Innovation? and Why aren't companies doing more

of it?, 2003). Based on the above exposure, the authors are interested to conduct research with the subject on the propensity to innovate by startup on two things; first, who are in the Top Management Team (TMT) level position, second focus on a startup at the early stage (in the validation phase of startup development phase) then for measuring innovation mindset using Berkeley Innovation Index (BII) then continued with interview to get more in-depth results. The aim of this study are to get innovation mindset of TMT level model that can drive personal innovation with the benchmark of Berkeley Innovation Index and to know what are the important factors at TMT level needs to be capable of encouraging personal propensity to innovate.

Literature Review

Innovation

Innovation is a pervasive attitude, a feeling, an emotional state, an ongoing commitment to novelty. It is a set of values that represent trust to look beyond the present and make that vision a reality (Kuczmarski, 2003). As explained above that not all entrepreneurial mindset benefits for entrepreneur activity (Mathisen & Arnulf, 2013), because it influenced by several factors, especially environmental factors (Sarooghi, Libaers, & Burkemper, 2015). The right environment for an entrepreneur will encourage creativity, where creativity is part of the innovation process (Hormiga, Hancock, & Valls-Pascola, 2013). Propensity to make innovation is a mindset is belief in one's ability to innovate must be steadfast, consistent, and deep. Because innovation is a mindset rather than a series of sequential activities. It requires an attitude of positive self-esteem. It supports a buoyant and optimistic belief that, over time, innovation will result (Kuczmarski, 1996).

Entrepreneurship has a positive effect on innovation (Hacioglu, 2012) & (Ma'toofi & Tajeddini, 2010). Enterpreneur's desire to take a risks, tolerate risk and uncertainty is a prominent feature of understanding that getting innovation is closely related to startups endurance during the development phase (Hyytinen, Pajarinen, & Rouvinen, 2015). For that, specific personal factors are essential to the pursuit of entrepreneurship especially during the crisis period (Bullough & Renko, 2013). This personal factor is closely related to the mindset. The activities of entrepreneurs can contribute to the implementation of innovative ideas (Lee & Hsieh, 2010). Open innovation drives the need to improve the entrepreneur mindset (Mantas & Soderquist, 2010) and relevance is highly in line with the business model at Startup (Fontana, 2011).

Innovation Mindset with Berkeley Innovation Index

The mindset is associated with the entrepreneur in constructing a problem and devising a solution (Mathisen & Arnulf, 2013). According to George Courus innovator's mindset is "belief that abilities, intelligence, and talents are developed so that they lead to the creation of new and better ideas (Courus, 2015). Propsensity to make innovation is a mindset, it is belief in one's ability to innovate must be steadfast, consistent, and deep. This is what distinguishes between entrepreneurs and businessmen and workers. Entrepreneurs build ideas from emerging empathy to tackle social and community issues. For that entrepreneur tend to prefer the impact that occurs from the solution is compiled rather than profit alone (Morato, 2012). Entrepreneurs are positioned differently on an individual level, company level and macro level. By the time it reaches the macro level it will have an impact on economic growth (Sidhu, Goubet, & Xia, Measurement of Innovation Mindset: A Method & Tool within The Berkley Innovation Index Framework, 2016a). The propensity to innovate is a characteristic that builds company

performance both at the individual and organizational level (Sidhu, et al., 2016). The propensity to innovate at an individual level enables an entrepreneurial spirit to materialize ideas that add value to the company. But the propensity to innovate is dependent on the level of creativity of the entrepreneur (Pereira-Leite & Morales, 2015) and evidently fused into the organization (Santos, Basso, & Kimura, 2017).

The Berkeley Innovation Index (BII) is an approach based on the Berkeley Method of Entrepreneurship (BMoE) project designed with the initial goal of being a holistic teaching and learning approach that enables individuals to engage and learn entrepreneurship. BII includes three main elements; infrastructure, mindset, and tactics (Sidhu, et al., 2016) developed to measure innovation rates based on psychological history and perceptions on organizational culture. The step to identify the psychological constructs of entrepreneurial mindset and innovation is based on the work that exists on known variables through six sub-traits personality traits that affect a person's mindset to innovate (Larsson & Ojala, 2016).

Figure 1: Personality Traits and Mindset According to BII

Top Management Team

Top Management Team (TMT) Level is the top-ranking executive within an organization, which is responsible for the performance of the entire company. Including chairman, CEO, managing director, president, executive director, vice president, etc. The main job of the TMT level is to formulate goals, objectives, and strategies. For example, by how relevant business modes to build (wikipedia). TMT has an influence on the orientation of corporate strategic innovation with particular relevance in deciding the overall strategic direction of the company, the composition of

the project portfolio, and the allocation of resources across innovation projects (Talke, Salomo, & Kock, 2011). Therefor it can be said that TMT level plays an important role in the innovation of company. Startup company has three important actors. They are hustler, hipster and hacker, known as founder, co-founder or ceo, it can be said as TMT.

Research Method

Research Design

The research was designed using single case study. This design is chosen to know how and why in knowing innovation mindset model in TMT Level on Start-up in validation phase. The type of approach taken in this study using descriptive qualitative with analytical methods. This approach is chosen because in qualitative research to examine the problems or events that are underway in the present conditions, the researcher did not prove anything or decline the hypothesis that has been made before, but the researchers process the data and analyze a problem in non-numeric form (Sugiyono, 2017). With these understanding, then this type of research focuses on the description of data in the form of sentences that have deep meaning derived from the informant. In this study using a qualitative approach to find the model and describe the innovation mindset that existed at startup which is still in the phase of validation.

Table 1. Variable of Innovation Mindset

Variable	Statement
Trust	*Most people can be trusted.* *Most people tell a lie when they can benefit by doing so.* *I trust other people.* *Those devoted to unselfish causes are often exploited by others.* *How long does it typically take you to generate a basic level of trust from a person you just met?*
Resilience	*I can accept failures as part of a learning process* *Failures often lead to positive outcomes in the long run* *I quickly overcome setbacks* *Failures allow opportunities for reflection and consideration*
Diversity	*It is important to me to interact with people that are different from me.* *I frequently come in contact with people that are different from me.* *I feel comfortable to talk to people that are different from me.* *Interacting with other persons makes me interested in things that happen outside of my field.*
Believe	*I can succeed at any endeavor to which I set myself.* *I have been able to successfully overcome many challenges.* *When facing difficult tasks, I am certain I will accomplish them.* *I have been able to achieve most of the goals I set for myself.* *When I see a better way to do something, I can influence the "organization*

	where I work" or the "people around me" to adopt that new approach.
Perfectionist	*I consider myself a perfectionist.* *I would prefer to hand in a product on time rather than making it perfect.* *In general, quality and perfection are more important than effectiveness.* *I would rather create something that is cost effective than the highest possible quality.*
Collaboration	*There are times when it makes sense to collaborate with my competitors.* *An active cooperation with my collaborators is important to me.* *A cooperation with one of my enemies could be very important to my firm.* *There are times when I would be open to share resources and information with my competitor.*

Source: Sidhu et.al, 2016

Our research objective was to find out the innovation mindset model and the factors that influenced at the early stage startups. Interviews were conducted on TMT level from selected startups. Instrument of interview was developed from six variables of Barkeley Innovation Index reference. The informant was selected through 37 startups who had already filled the questionnaire. The criteria of startup to be an informant are bootstrap startups which are in the position of early-stage in Jakarta and have passed at least validation phase. It means, startups are recognized by users through any social media and having daily transactions. They are the CEO or founder from Tanijoy, Shipper, Skleem and Sarang Jasa.

Data Analysis

Data analysis is an attempt to process data into information so that the characteristics of the data can be drawn conclusions and can be understood. Data analysis technique that will be used in this research is inductive descriptive analysis technique. In inductive descriptive analysis technique used to analyse data from samples by describing data that has been collected as it is with the intention of making conclusions that apply to the population. The data obtained will be described or illustrated as is with aim of drawing a conclusion that apply to public.

The observation is done by observing the startup activity where the observer acts as an independent observer on the IDX incubator located Jakarta, Indonesia. This study is based on major literature study that discusses the innovation mindset with the research entry area of Technology Innovation. Variables of innovation mindset were taken based on study conducted by Professor Ikhlaq Sidhu (2016), its known as Berkeley Innovation Index (BII).

Research instrument obtained through the three steps, observation, distributed questionnaire and interview. Observation activities were conducted to observe the behaviour of digital startup in the incubator ecosystem and capturing the characteristics of startup under different incubators. Questionnaire was distributed based on the Innovation Mindset framework, consisting six main variables as described above. Then, the result of the questionnaire is calculated by the formula of BII Index and get the result of innovation mindset level with range 1 to 10. This result then

mapped in the spider graph. Each graph is grouped according to startup type based on startup development phase i.e. formation, validation and growth. We did interview to the selected startups who have reached the validation phase, namely Tanijoy, Shipper, Sarang Jasa and Skleem. Structured is chosen because the interviewer has known for sure about the information to be obtained through the six predefined variables and each informant has the same question. The types of questions asked use both closes question and open questions.
This study use three kind of data analysis. They are descriptive analysis, radar graph analysis and domain analysis.

Discussion of the findings
From the measurement of innovation mindset with BII, it is found that innovation mindser index of Sarang Jasa is 5.7, Skleem is 6.5, Tanijoy is 7.4 and Shipper is 8.4. From the above picture, Shipper has the highest value of 10 for the failure (plan to fail), diversity and believe variables, while the lowest index for collaboration and trust occurs in the Sarang Jasa.

Trust
Trust is examined from two aspects: internal and external aspects. Internal aspects are used to explore information about how a founder choose a co-founder partner, builds partnership to initiate startup, overcomes the resource difficulties experienced by startup and how open to sharing information. While the external aspect for trust variable explains how the informants see the competitor. Although only one startup actually claim that everyone can be trusted, but all the four disagree that everyone tends to lie to get desire benefits.

Resilience
Plan to fail is sometimes required to measure the individual's ability to face failure, it is a construct of resilience and entrepreneurial failure. plan to fail can also be interpreted fail fast, grow fast. the sooner the failure is found in the early of developing digital startup, the sooner the startup grows, as long as individual in the startup is able to perform the failure analysis, adapt and fix it again continuously. from the statement "at the beginning of development of this startup, I must encounter failure many times". Of all informants, only Skleem who stated disagree. But, everyone agreed that they will make a new digital startup if the startup that currently run will fail. Facing high risk is also part of the element of resilience. from quick respond statement. everyone agreed to invest 5% of their revenues for a business that is not yet clear on its success. From the question "What is the highest risk you have ever experienced during the startup developing?". Sarang Jasa has the most different answer. According to Sarang Jasa, choosing a team is the highest risk for a founder. The wrong team selection can be a toxic for other elements. According to Skleem, do not make unpredictable future as an obstacle to take high risk decisions. In contrast to Shipper, who said that the real high risk lies not in the decision making, but in the process that occurred, it was the real high risk.
Believe
Believe in this construct is a perception that comes to the mindset of a person that he is capable of changing the world. From the quick response table above, Sarang Jasa and Shipper confirmed that when both of them encounter problems, then both are confident that they will deal with it easily. This is different from Skleem and Tanijoy, although the four informants agree and believe that what they are building is capable for changing the world.

Perfection

Perfectionist variable it tells that perfect is not good, but good enough is perfect. Perfectionist is also illustrated that someone needs to take a moment to do exploration. On average all informants agree that perfection can not be realized, there is always an error. It is also accordance with qualitative statement that completing product on time with minimum requirement will be better that waiting for the product to be perfect.

Diversity

Diversity explains that individual's ability to adapt and communicate in an environment different from himself or herself. This variable is closely related to Collaboration. Diversity also explains how a person interacts with others he does not know, feels welcome, happy to listen and feel free to connects. All informants stated that it was important for them to spend time to meet people from different area with them. Skleem said that it needs to be done to gain new knowledge, seek inspiration, know the capabilities, and expand network. Sarang Jasa stated that at least 1 (one) month to meet people from different area with himself, while Tanijoy recommended to meet people with different are every week to get acquainted with one new person. According to Tanijoy, meeting people with different area expertise they have will facilitate to learn new fields in short time relatively.

Collaboration

Collaboration explains how founders collaborate with internal and external members. There are two types of collaboration shown in this variable, the collaboration that occurs between individuals and teams and on competitors and partners or called coopetition. Interestingly, all three informants agreed that they should collaborate with competitors except one, same with the question "do you have to compete with your competitors?". It can be said that only two informant agreed that they should collaborate with competitors but also compete with them.

Conclusion

Based on the results of research with qualitative methods using technique of observation, BII result, interviews and documents carried out. All informants have different perceptions on each variable of the BII index, by re-configuring based on BII it can be seen that the improvement of innovation can be done by these for propositions:

***Proposition 1*:** Startups that share information openly and collaborate with the same startup area, but different products or expertise will have a propensity to higher innovate, compared to startups that share information only with mutual value assets and collaborate only with the startup who has same mission and vision.

***Proposition 2*:** Startups are aware and able to predict mistakes, then do not make the same mistakes lead to learn fast will have a propensity to higher innovate.

***Preposition 3*:** Startups that divide their divisions to balance exploration and exploitation will have propensity to higher innovate that startups that do not divide the division for exploration and exploitation.

***Proposition 4*:** The purpose of building networks with different people variations will influence the propensity to innovate than the network density (number of people) themselves.
These proposition results then displayed in the Personality Traits for Propensity to Innovate Model.

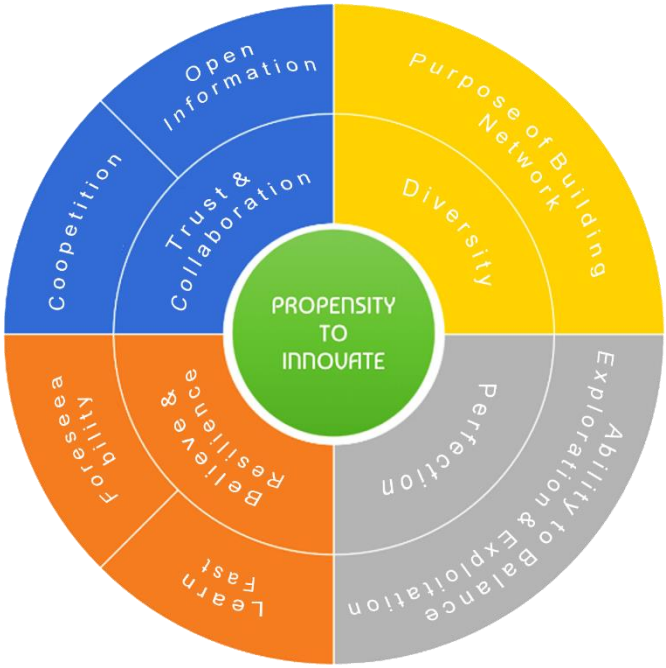

Figure 2: Personality Trait for Propensity to Innovate Model

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SCRUTINISING THE SOCIO-DEMOGRAPHIC PATTERN OF PARENTING PRACTICES AND PARENTING STYLES IN UPHOLDING CHILD'S PROTECTION AND PRIVACY TO ADDRESS PAEDOPHILIA ISSUE

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Abstract: *Paedophilia issue has become a global issue around the world, including Malaysia. In today's era of globalisation and modernisation, the seriousness of paedophilia issue is undeniable. As the closest persons to children, parents have been recognised as the critical actor that contributes to children's protection and security. However, research related to "parenting practices" and "parenting styles" specifically to address the paedophilia issue remains limited in Malaysian context. Thus, a doctoral research, conducted by one of the authors, aimed to fill the gap. Based on the findings, this paper presents the socio-demographic and sociocultural pattern of Malaysian parents in upholding child protection and privacy to prevent paedophilia issue. A survey involving 900 parents representing the equal number of genders (male and female) and ethnicities (Malays, Chinese and Indian) was undertaken. Based on the statistical analysis, there were two key findings highlighted in this paper, which were: (1) the socio-demographic pattern revealed that female parents have higher interest in upholding the child protection and privacy, as compared to male parents; and (2) the socio-cultural pattern showed that Indian parents have high commitment in upholding the child protection and privacy, followed by Malay and Chinese parents. Although every parent has different approaches in upholding their children's protection and privacy; however, this paper argued that the socio-demographic and socio-cultural aspects are among the main indicators influencing parenting practices and parenting styles in Malaysia.*

Keywords: *Paedophilia, parenting practices, parenting styles, child protection and privacy*

Introduction

The year 2014 has sparked an anger and grief among Malaysian citizens due to the abuse cases involving 23 children in the big city of Kuala Lumpur. This hideous crime was committed by a British paedophile who masqueraded as an English teacher who provided free English classes to the victims. However, studies proved that Malaysian parents seem to be forgotten about the issue that it has been washed away over the time. Although the roles and responsibilities of parents are important in child development and growth as well as child protection and privacy; parents still

keep exposing their children to the sexual predators. Without thinking about the negative consequences, parents upload their children's pictures and videos on the internet, especially on social networking sites such as Facebook, Instagram and Twitter. There is no doubt that, in most situations, the internet can make people's lives easier; however, the negative consequences of misusing the internet are still open for more debates and discussions all over the world. Thus, parents, as the closest persons to children, should protect and secure their children privacy from being victimised by sexual predators including paedophiles.

Based on this main gap, one doctoral research is being undertaken entitled: "Do not publicise me; I may be the victim of paedophiles": The parenting practices and parenting styles in upholding the child protection and privacy in Malaysia. Based on the result gathered during the survey of this study, this paper aimed to present a part of the findings which can be divided into three main objectives of: 1) to identify the parents' behaviour in upholding child protection and privacy to prevent paedophilia issue; (2) To examine the socio-demographic patterns (gender and age groups) of parents in upholding child protection and privacy to prevent paedophilia issue; and (3) to examine the socio-cultural pattern (ethnics) of parents in upholding child protection and privacy to prevent paedophilia issue. The detail analysis and discussion is presented in the following sections and sub-sections.

Literature Review – The Parenting Practices and Parenting Styles in Upholding the Child Protection and Privacy to Address the Paedophilia Issue in Malaysia

In today's globalised, modernised and digitalised world, social issues are becoming more complex and difficult to understand. In worst-case scenario, the issues become more serious when the victims are among children at young age. Children have been recognised as one of the vulnerable groups, in any part of the world, who require adequate protection, care, security, development and growth. This is because children do not have the capability and capacity to protect themselves, especially when dealing with the issue of child abuse. A study undertaken by Ahmad (2018) revealed that the child abuse issue in the world has a long history since 1860s, when the first term of 'battered child syndrome' was coined by Ambroise Tardieu, a professor of legal medicine in Paris, during that century. After cycles of discussions and debates among scholars and researchers regarding the term, there was a growing interest in child abuse and neglect issues in all over the world, including Malaysia. Ahmad (2018) further stated that the issue of child abuse in Malaysia gained significant prominence, and further it was catapulted into the public's attention in 1990 by the events and media attention surrounding the tragic death of 26-month-old B. Balasundaram who was brutally abused.

Since then, it is believed that the child abuse issue in Malaysia has undergone a series of evolution and engraved with a number of current challenges such as the disruptive technological advancement. Due to this situation, numerous types of child abuse have emerged in the country, such as paedophilia issue. History revealed that the paedophilia issue has existed since 1880s when the term was firstly discussed in a book entitled *'Psychopatia Sexualis: A clinical forensic study*, written by Richard Kraftt-Ebing, a German sexologist and physician. However, after only more than a century, this issue received an attention and acknowledgement in Malaysia. Back in 2014, the first paedophilia case involving 23 Malaysian children sparked anger and grief among Malaysian societies. This case further received extensive coverage from media all over the world since the perpetrator is recognised as one of brutal paedophiles in the world. Richard Huckle, a British paedophile, committed the crime over Malaysian children aged between 6 months to 12

years old (The Star, 2016). Some of the victims were raped (14 charges) and sexually assaulted (21 charges). And in worst case scenario, Huckle uploaded the pictures and videos of abused children to be posted on the website known as the True Love Zone (The Star, 2016). This worrying situation has significantly influenced the children's development and growth because once the child is abused, the scar remains forever.

Although the seriousness of Huckle's paedophilic crime is undeniable and it gives million consequences to children's protection and privacy; however, this issue seems to be forgotten and washed away over the time. According to Datuk Dr. Amar Singh, a senior consultant paediatrician, many Malaysian parents still happily post the pictures of their children on social networking sites such as Facebook, Instagram and Twitter (The Star, 2017). Besides, some of Malaysian parents also use their children's pictures as profile images on messaging platform, including WhatsApp and WeChat. Without thinking about negative consequences, parents actually provide a rich access of child pornography to sexual predators including paedophiles who have sexual interest in children (The Star, 2017). Previously, children are highly exposed to risks and abuse in various settings and situations, including at home and school; however, the 'new trend' of paedophilia issue allows children to be virtually abused without anyone noticing through the production of child pornography materials (Mat Yunus, 2018).

It takes a village to raise a child—This proverb portrays that the duty of protecting children is everyone's responsibility. However, among the community, this paper argued that 'parents', as the closest persons to children, have the biggest responsibility and obligation to protect and secure their children's privacy. In other countries such as the United Kingdom (Hawes & Hooper, 2012), the United States (MBC, 2017), Australia (Sanders, 2015), Canada (Commit to Kids, 2008-2012) and Southeast Europe (Illieska & Resavska, 2015), the roles of parents have been highly emphasised in protecting children, especially from sexual abuse issue including paedophilia. Each country has developed a specific guideline to assist and educate parents as well as protect children from being the victims of sexual abuse. However, literature revealed that Malaysia is still putting a lack of emphasis on developing specific guideline for parents. Based on this main gap, a doctoral research, conducted by one of the authors, aimed at exploring the 'parenting practices' and parenting styles' in upholding the child protection and privacy in Malaysia, specifically to prevent paedophilia issue. Thus, this paper presents the statistical findings related to socio-demographic and socio-cultural pattern of Malaysian parents in upholding child protection and privacy to prevent paedophilia issue.

Methodology

This study applied the quantitative approach through a general survey by using questionnaire. A total number of 900 parents were involved in this study which represented an equal number of genders (male and female parents) and ethnicities (Malay, Chines and Indian parents). The survey was conducted in three different areas in Kuala Lumpur which were Batu, Kuala Lumpur city and Petaling. Notably, these three main areas were selected based on the population distribution of the three main different ethnics. The selection of sample for this study was based on five main criteria as presented in Table 1. Although this study involved parents who lived in Kuala Lumpur; it could be generalised to Malaysian population. This is because; the population in Kuala Lumpur came from various people from other states in Malaysia. History showed that Kuala Lumpur has a diversified population since 1980s which resulted from the internal migration during that time; and the number still increased in 2000s (Hussain et al., 2015). A high

number of internal migrants (from other states such as Kedah, Penang, Kelantan, Terengganu, Sabah and Sarawak) to Kuala Lumpur have changed the landscape of its population distribution. Hence, the total number of samples involved in this study could be argued to represent the total population of Malaysia. Further, the findings of this study were analysed by using the Statistical Package for Social Science (SPSS) through frequency, descriptive, crosstabulation, T-Test and One-Way ANOVA analyses.

Table 1: Criteria for Sample Selection Involving Parents

Criteria	Number of samples
Area	
Batu	300 respondents
Kuala Lumpur	300 respondents
Petaling	300 respondents
Ethnicity	
Malay	300 respondents
Chinese	300 respondents
Indian	300 respondents
Gender	
Male	150 respondents for each area
Female	150 respondents for each area
Age of parents	
25 to 55 years old	300 respondents for each area
Age of children	
Parents must have at least a child, aged 7 to 13 years old	300 respondents for each area

Findings

The presentation of findings derived from the quantitative results of this study is presented based on three main aspects, which are: (1) profile of respondents; (2) parents' behaviour in upholding child protection and privacy to prevent paedophilia issue; (3) socio-demographic pattern; and (4) socio-cultural pattern of parents in upholding child protection and privacy to prevent paedophilia issue in Malaysia, as stated in the following sub-sections.

Profile of Respondents

As indicated earlier, the number of parents participated in the survey represented the equal number of genders (450 male respondents and 450 female respondents) and three main ethnics (300 respondents represented each ethnic) in Malaysia. Based on the findings discovered from the quantitative results, the pattern of age among parents can be considered as similar.

The majority of parents who involved in this study were among the parents aged between 36 to 40 years old (326 respondents). Since this study involved with parents who have at least one child, mostly, the status of respondents were found to be married (857 respondents).

However, there were few respondents who were still single but already have children due to the adoption (10 respondents). In term of religion, all Malay parents were Muslims (300 respondents); while the other two ethnics were among Buddhism (274 respondents) and Hinduism (282 respondents). There was a small proportion of respondents who believed in other religions (37 respondents). In term of educational background, more than half of the percentage held tertiary level of education (584 respondents). Notably, most of respondents worked in various sectors. The highest was private sector (398 respondents), followed by public sector (248 respondents); and more than half of the respondents earned below RM5,000.00 (489 respondents). Further, the majority of respondents' households were around RM6000 and below. Table 2 showed the profile of respondents involved in this study.

Table 2: Demographic Profile of Respondents

Profile	Total	Percentage (%)
Gender		
Male	450	50.0
Female	450	50.0
Age		
25-30 years old	82	9.1
31-35 years old	155	17.2
36-40 years old	326	36.2
41-45 years old	197	22.0
46-50 years old	103	11.4
51-55 years old	37	4.1
Status		
Single	10	1.1
Married	857	95.2
Divorced	23	2.6
Widowed	10	1.1
Religion		
Islam	307	34.1
Buddha	274	30.4
Hindu	282	31.3
Christian	35	4.0
Others	2	0.2
Education		
Never been to school	3	0.3
Primary School	32	3.6
Secondary School	227	25.2
Malaysian Higher School Certificate	54	6.0
Certificate	54	6.0
Certificate	203	22.6
Diploma	279	31.0
Bachelor Degree	38	4.2
Master Degree	6	0.7
Doctoral Degree	3	0.3

Professional Qualification	1	0.1
Others		
Occupation		
Not working	78	8.7
Government	248	27.6
Private	398	44.2
Non-Governmental Organisation	22	2.4
Self-employed	140	15.6
Others	14	1.5
Household Income		
No income	18	2.0
Below MYR1,000	14	1.6
MYR1,001-MYR2,000	51	5.7
MYR2,001-MYR3,000	106	11.8
MYR3,001-MYR4,000	157	17.4
MYR4,001-MYR5,000	143	15.9
MYR5,001-MYR6,000	119	13.2
MYR6,001-MYR7,000	89	9.9
MYR7,001-MYR8,000	84	9.3
MYR8,001-MYR9,000	53	5.9
MYR9,001-MYR10,000	26	2.9
MYR10,001 and above	40	4.4
Years Staying in Kuala Lumpur		
Below 5 years	31	3.4
5 years – 10 years	156	17.3
10 years and above	713	79.3
Number of Child		
1-4 children	842	93.6
5-8 children	58	6.4

Research Objective 1: To Identify the Parents' Behaviour in Upholding the Child Protection and Privacy to Prevent the Paedophilia Issue

The first objective explores the level of parents' behaviour in upholding child protection and privacy to prevent paedophilia issue. Thirteen (13) questions related to parents' behaviour in in upholding child protection and privacy were adopted from the 54 principles of CRC. These 13 questions were applied in the context of preventing paedophilia issue. Each question was measured through 5 (five) Likert scale questions [Strongly disagree (1) to strongly agree (5)]. The findings of level of parents' behaviour in upholding child protection and privacy to prevent paedophilia issue are presented in Table 3. The overall findings indicated that the level of parents' behaviour in upholding child protection and privacy to prevent paedophilia issue is considered good (Mean=4.6841, Std. deviation=0.668). The highest mean value was recorded for the role of parents in ensuring that the "children must be protected from engaging in any unlawful sexual activities" (Mean=4.72, Std. deviation=0.667); followed by "protecting children from engaging in any unlawful sexual activities" (Mean=4.71, Std. deviation=0.622); "protecting children from engaging in prostitution or other unlawful sexual practices" (Mean=4.71, Std.

deviation=0.642); and "children must be protected for their best interests (Mean=4.70, Std. deviation = 0.608).

Table 3: Level of Parents' Behaviour in Upholding the Child Protection and Privacy

Items	Mean	Std. Deviation
Children must be protected from discrimination.	4.70	0.609
Children must be protected for their best interests.	4.66	0.601
Child protection and care is necessary for the children's well-being.	4.68	0.584
Children need appropriate direction and guidance from parents/guardians/responsible adults.	4.65	0.609
The children's rights to survival and development must be uphold.	4.67	0.611
Children's views and voices must be heard.	4.61	0.677
Parents have the primary responsibilities for the upbringing and development of their children.	4.64	0.640
Children need to be protected from abuse and harm.	4.67	0.642
Children should not be deprived from his/her family development.	4.63	0.668
Children should not be sexually exploited and sexually abused.	4.68	0.667
Children must be protected from engaging in any unlawful sexual activities.	4.72	0.622
Children must be protected from engaging in prostitution or other unlawful sexual practices.	4.72	0.642
Children must be protected from being exploited in pornographic performance and materials.	4.71	0.688
Child protection and privacy (DV)	4.68	0.461

Research Objective 2: To Examine the Socio-Demographic Patterns (gender and Age Groups) of Parents in Upholding the Child Protection and Privacy to Prevent the Paedophilia Issue in Malaysia

In answering the first objective, a separate independent sample T-Test analysis was conducted to examine the pattern of "gender" and "age groups" among parents in upholding child protection and privacy to prevent paedophilia issue in Malaysia. The findings are presented in Table 4. These findings revealed that there was no significant difference between "gender" and parents' behaviour in upholding child protection and privacy to prevent paedophilia issue in Malaysia [t=-1.737, df=898, p = 0.083 (p>0.05)]. Notably, the respondents' "age groups" found significant difference with parents' behaviour in upholding the child protection and privacy to prevent paedophilia issue in Malaysia [t=3.580, df=580.727, p = 0.000 (p>0.01)]. The mean value for younger age group parents (25 – 40 years old) in upholding child protection and privacy to prevent paedophilia issue was found higher (Mean=4.7289, Std. deviation=0.41106) than older age parents (41 – 55 years old) (Mean=4.6091, Std. deviation=0.52539).

Table 4: The Socio-Demographic Patterns (Gender and Age Groups) of Parents in Upholding the Child Protection and Privacy to Prevent the Paedophilia Issue

Variable	Levene's Test	t	df	Sig. (2-tailed)	Mean difference
Pattern of "gender" among parents in upholding the child protection and privacy to prevent the paedophilia issue in Malaysia.	0.418 (Homogeneity is assumed)	-1.737	898.000	0.083 (Not significant)	-0.05328
Pattern of "age groups" among parents in upholding the child protection and privacy to prevent the paedophilia issue in Malaysia. *Age groups of parents are categorised into two: 1) Young parents: 25 – 40 years old 2) Older parents: 41 – 55 years old	0.000 (Homogeneity of variance not assumed)	3.580	580.727	0.000 (Significant)	0.11978

Research Objective 3: To Examine the Socio-Cultural Pattern (Ethnics) of Parents in Upholding the Child Protection and Privacy to Prevent the Paedophilia Issue in Malaysia

In answering research objective two, One-Way ANOVA analysis was conducted. The finding of this analysis is presented in Table 5. Based on the ANOVA findings, there was a significant difference between three main ethnic groups with parents' behaviour in upholding child protection and privacy to prevent paedophilia issue in Malaysia [F=9.498, df=2, p=0.000 (p<0.01)]. The Levene's test value was less than 0.05 indicating that homogeneity of variance was not assumed. Therefore, the Pos Hoc findings of Tamhane were used to compare each ethnic group. The significant findings were found between: (1) Chinese and Indian [p=0.000 (p<0.01), mean difference = -0.16188]; (2) Indian and Malay [p=0.007 (p<0.01), mean difference = -0.09205].

Table 5: The Socio-Cultural Pattern (Ethnics) of Parents in Upholding the Child Protection and Privacy to Prevent the Paedophilia Issue

Pattern of socio-cultural (ethnic groups) of parents in upholding the child protection and privacy to prevent the paedophilia issue			**ANOVA:** [F=9.498, df=2, p=0.000 (p<0.01)]		
			Levene's Test (0.000) (Homogeneity of variance not assumed)		
			Mean Difference	**Std. Error**	**Sig.**
Tamhane	**Chinese**	**Indian**	-.16188*	.03909	.000
		Malay	-.06983	.04155	.255
	Indian	**Chinese**	.16188*	.03909	.000

	Malay	.09205*	.03017	.007
Malay	**Chinese**	.06983	.04155	.255
	Indian	-.09205*	.03017	.007

Discussion and conclusion

The findings of this study can be divided into three main objectives which were: (1) to identify the parents' behaviour in upholding child protection and privacy to prevent paedophilia issue; (2) To examine the socio-demographic patterns (gender and age groups) of parents in upholding child protection and privacy to prevent paedophilia issue; and (3) to examine the socio-cultural pattern (ethnics) of parents in upholding child protection and privacy to prevent paedophilia issue. Based on the findings of the first objective, this study discovered that overall level of parents' behaviour in upholding child protection and privacy to prevent paedophilia issue is considered good. This indicates that Malaysian parents are becoming more aware of child protection and privacy. This study believed that the complexity of social issues involving children has called parents to strengthen their parenting practices in order to prevent their children from being the victims of child sexual abuse.

Further, in answering the research objective two and three, this study also conducted two different analyses that aimed to examine the socio-demographic and socio-cultural patterns of parents in upholding child protection and privacy to prevent paedophilia issue in Malaysia. As indicated earlier, the independent sample T-test was undertaken to scrutinise the socio-demographic pattern of parents. Based on the findings, this study discovered that there is no significant difference between "gender" and behaviour of parents in upholding child protection and privacy in Malaysia. The findings of this study showed different pattern which "gender" is not a significant predictor in examining parents' behaviour in the context of this study. Previously, research on parenting practices and styles revealed that male and female parents showed a significant different in raising their children; however, this study believed that due to the negative implications of rapid development, globalisation, modernisation and other constraints faced by today's parents, both need to undertake almost similar responsibility towards their children, especially in terms of the child protection and privacy. Although the role theory can explain the differences between fathers and mothers; however, through gender socialisation, male and female parents are continuously learning the social expectations associated with one's sex (Garcia & T. de Guzman, 2017).

On the other hand, "age group" showed contradict findings whereby it has a significant difference with the parents' behaviour in upholding child protection and privacy to prevent paedophilia issue in Malaysia. In this case, protecting children from sexual predators, especially paedophiles, can be undertaken in physical reality. However, it may become more difficult to protect and secure children's privacy in the virtual reality. Due to the globalisation and modernisation, the rapid technological advancement gives an impact towards child development and growth. According to an organisation in the United Kingdom, The Lucy Faithful Foundation (n.d.), children and young people often use computers and mobile phones from an early age at home and in school. In some worrying situations, their knowledge and understanding of how it works may be greater than their parents and carers (The Lucy Faithful Foundation (n.d.). This situation portrayed that "age group" can be considered as one of the indicators which can influence the parents' behaviour in protecting and securing children's privacy.

Further, One-Way ANOVA analysis was undertaken to examine the socio-cultural pattern (ethnics) of parents in upholding child protection and privacy to prevent paedophilia issue in Malaysia. The findings of this study discovered two categories which have significant differences which were: (1) Chinese and Indian; and (2) Indian and Malay. Although Colby (2006) undertaken a slightly different study that proved culture is one of the important factors to be taken into account when labelling certain acts as abusive or neglectful; however, it is argued that different culture can also determine different behaviour of parents in protecting their children from paedophiles. An initiative of understanding child abuse issue in Malaysia undertaken by Ahmad (2018) showed that the findings of this study are consistent with previous research, whereby previous authors stated that culture have significant influenced on parenting practices.

Based on the above analysis and discussion, this study argued that "parents", as the closest persons to children, need to protect and secure their children's privacy from any form of abuse including paedophilia. The roles of parents do not limit only to homes; they have big responsibilities beyond their comfort zones; and the most important thing is parents need to protect and secure children as an *Amanah* (trust) rather than the property. Further, the relevant information gathered throughout the study can be utilised by the relevant agencies, especially the government and non-governmental organisations, in promoting and educating parents and their children on child protection and privacy in this country.

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THE RELATIONSHIP BETWEEN 'PARENTING PRACTICES AND STYLES' AND 'THE CHILD PROTECTION POLICY AND PRIVACY' TO ADDRESS THE PAEDOPHILIA ISSUE IN MALAYSIA

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Abstract: *The topic of 'parenting practices' and 'parenting styles' are tremendously being discussed in research related to child development and growth around the world, including Malaysia. However, these aspects are still under-researched particularly involving paedophilia issue. Based on this main gap, this paper presents the relationship between 'parenting practices and styles' and 'child protection and privacy', specifically to address paedophilia issue. Quantitative approach by using survey was utilised in this study involving 900 Malaysian parents located in Kuala Lumpur. The respondents of this study were selected based on five main criteria: (1) three districts (Batu, Kuala Lumpur and Petaling); (2) equal number of genders; (3) equal number of three main ethnicities; (4) age of parents (25 to 55 years); and (5) age of children (7 to below 13 years). Based on Pearson correlation analysis, the findings revealed that three 'parenting practices' (involvement, monitoring, and goals, values and aspirations) and two 'parenting styles' (authoritative and permissive) have significant positive relationships with 'child protection and privacy' in addressing paedophilia issue ($p<0.01$). However, one of the 'parenting styles' (authoritarian) has no significant relationship with 'child protection and privacy'. This finding portrayed the pattern of parenting practices and styles as an indicator representing Malaysian parents to protect and secure children's privacy from being the victims of paedophiles. This paper concluded that parents as the closest persons to children need to play their roles and responsibilities to tackle any issue involving children as one of the ways to uphold their rights.*

Keywords: *Paedophilia, parenting practices, parenting styles, child protection and privacy*

Introduction

Research regarding parenting practices and parenting styles are frequently discussed in the aspects of child development and growth. However, literature revealed that these aspects have been neglected when discussing issue related to child protection and privacy, particularly in Malaysian context. Putting an emphasis on parenting practices and styles in protecting children

from being the victims of paedophiles is important. This is because; it is believed that social problems involving children have become more complex due to globalisation, modernisation and technological advancement. Thus, based on this gap, a collective doctoral study was undertaken to explore parenting practices and parenting styles when upholding child protection to prevent paedophilia issue in Malaysia. However, this paper only aimed at examining the relationship between 'parenting practices and styles' and 'child protection and privacy' to prevent paedophilia issue in Malaysia. The relevant information regarding the methodology, findings and discussion were presented in the following sections.

Literature Review – 'Parenting Practices', 'Parenting Styles' and 'Child Protection and Privacy'

Each and every parent around the world has different ways and approaches in raising their children. Some parents can be classified as responsive parents as they rationally and proactively fulfil their children's needs and wants for the children's development and growth. On the other side, there are some parents who can be associated with demandingness. This type of parents urges their children to obey the rules and regulations that they implemented and punishes their children for disobedience. In comparing these two types of parents, the majority would choose to be the responsive parents rather than demanding parents. However, it is believed that the element of demandingness should also be embedded in order to control and regulate children's behaviours. In this case, this paper argued that the ways and approaches undertaken by parents in raising their children are influenced by the parents' background, educational level, socio-economic and many other factors.

Debates and discussions regarding parents' ways and approaches in raising their children—or popularly known as 'parenting practices' and 'parenting styles' among researchers and scholars—were discussed in many aspects, especially related to the aspect of child development and growth. However, there are limited research focuses on the aspects of child protection and privacy, particularly in Malaysian context. Due to this gap, this paper focused on the parenting practices and styles among Malaysian parents in upholding child protection and privacy to prevent paedophilia issue. Due to the globalisation, modernisation and technological advancement, social problems involving children are becoming more complex, including the issue of paedophilia. The term of paedophilia was coined by Krafft-Ebing (1886), a German sexologist and physician, and further classified the paedophilia issue as psychosexual perversion. Further, reviewing literature surrounding the term 'paedophilia' revealed that there is a number of definitions of paedophilia developed by scholars and researchers around the world. Seto (2009), in his work, defined paedophilia as 'a sexual interest in prepubescent children, as reflected by one's sexual fantasies, urges, thoughts, arousal or behaviour; who sexually prefers children and has no sexual interest in adults or who is sexually attracted to children but also has sexual fantasies, urges and others towards adults'. On the other hand, Hall and Hall (2007) claimed that 'a paedophile is an individual who fantasises about, is sexually aroused by, or experiences sexual urges toward prepubescent children for a period of at least 6 months. However, in the simplest definition, paedophilia can be referred as the obsession of adults towards children, generally aged below 13 years old.

As indicated earlier, the aim of this paper is to determine the relationship between 'parenting practices and styles' and 'child protection and privacy' among Malaysian parents in protecting their children from being victimised by paedophiles. By using the conventional

categories of parenting practices which were developed by Darling and Steinberg (1993), which are 'parental involvement', 'parental monitoring' and 'parental goals, values and aspirations', this paper aimed at determining the current parenting practices among Malaysians. In the context of this paper, parental involvement refers to interaction and involvement of parents in children's life on a daily basis; while parental monitoring refers to the regular monitoring undertaken by parents on children's activities (Spera, 2005), especially on the internet and social networking sites. And parental goals, values and aspirations refer to the process of communicating the goals that parents want their children to attain, aspirations that parents want their children to fulfil and values that parents want their children to internalise (Spera, 2005).

On the other hand, three constructs of parenting styles were used in this paper, and they were adopted from the work undertaken by Baumrind (1993), which are authoritative, authoritarian and permissive parenting styles. Similar to the above discussion on ways and approaches of parents, parenting styles adopted in the context of this paper are also argued to be influenced by a number of factors including parents' background, level of education, environment, situation and others. Among these three styles, authoritative is considered as the most appropriate to be applied and adopted by parents since it enables parents to develop a close, healthy and emotional bond with their children. However, due to different backgrounds, some parents adopted the authoritarian parenting styles as they are stricter in demanding their children to follow their rules. And some other parents' practices are lenient ways of raising children categorised under the permissive parenting style.

Based on the above discussion, 'parenting practices' and parenting styles' were argued to be the critical indicators in upholding child protection and privacy, particularly in Malaysia. Thus, this paper quantitatively examined the relationship between 'parenting practices (involvement, monitoring, and goals, values and aspirations) and styles (authoritative, authoritarian and permissive)' and 'child protection and privacy 'in Malaysia to prevent children from being the victims of paedophiles. Diagram 1 showed the research framework developed in this research. The findings were presented in the following sections.

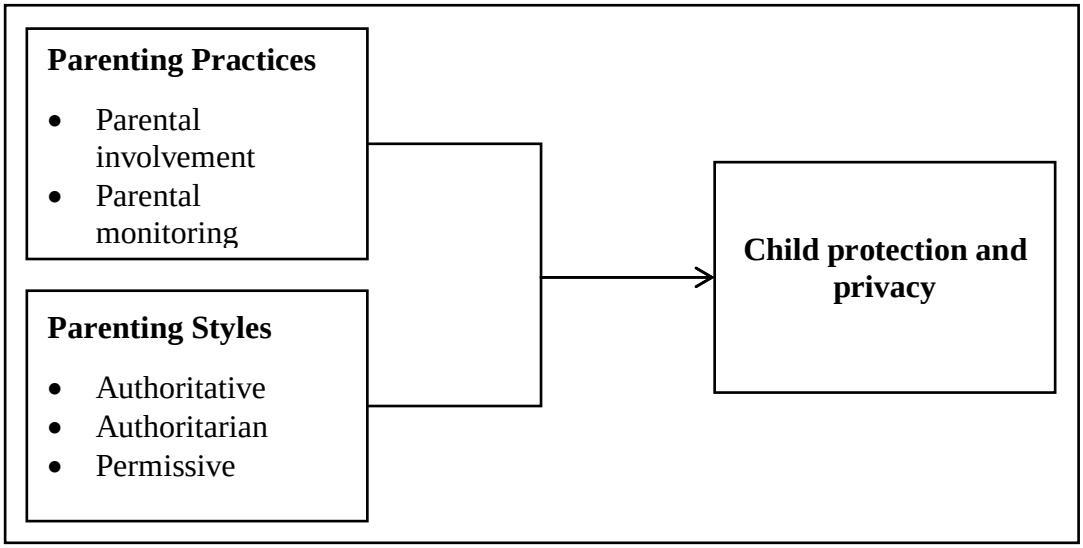

Diagram 1: Research Framework

Methodology

This study adopted quantitative method through a general survey by using questionnaires involving 900 parents in Kuala Lumpur, particularly in three different areas which were Batu (300 respondents), Kuala Lumpur city (300 respondents) and Petaling (300 respondents). The total number of 900 samples was also equally distributed according to ethnicity (Malays, Chinese and Indian) and gender (male and female parents). Further, this research scopes the samples into other two criteria which were age of parents (25 to 55 years old) and age of children (parents must have at least a child, aged 7 to 13 years old). The findings of this research were analysed by using the Statistical Package for Social Science (SPSS) through frequency, descriptive, reliability and Pearson correlation analyses. Notably, the findings derived from this research could be generalized to the total Malaysian population. This is because the residents in Kuala Lumpur came from various states in Malaysia. History showed that Kuala Lumpur has a diversified population since 1980s which resulted from the internal migration during that time; and the number still increased in 2000s (Hussain et al., 2015). A high number of internal migrants (from other states such as Kedah, Penang, Kelantan, Terengganu, Sabah and Sarawak) to Kuala Lumpur have changed the landscape of its population distribution. Hence, the total number of samples involved in this study could be argued to represent the total population of Malaysia.

Findings

The presentation of findings derived from the quantitative results of this research is presented based on three main aspects, which are: (1) profile of respondents; (2) reliability analysis; and (3) Pearson correlation analysis.

Profile of Respondents

Based on the findings gathered from 900 parents participated in the general survey conducted by this research, the findings regarding the demographic profiles of respondents can be divided into several components. As mentioned earlier, in term of gender, this research has equally distributed the questionnaires according to gender (450 male respondents and 450 female respondents) and ethnicity (300 respondents represented each ethnic). Further, the frequency analysis showed that the majority of parents involved in this research aged 40 years and below (563 respondents). In term of status, most of respondents claimed that they were married (857 respondents). Regarding the religious belief, all Malay respondents were Muslims (300 respondents), while Chinese and Indian respondents embraced Buddhism (274 respondents) and Hinduism (282 respondents) respectively. However, there were some portions of Chinese and Indian respondents who believed in other religions such as Islam (7 respondents), Christian (35 respondents) and others (2 respondents). In term of educational background, more than half of the percentage held tertiary level of education (584 respondents) and earned around RM6000 and below of the household income. Table 1 shows the profile of respondents involved in this study.

Table 2: Demographic Profile of Respondents

Profile	Total	Percentage (%)

Gender		
Male	450	50.0
Female	450	50.0
Age		
25-30 years old	82	9.1
31-35 years old	155	17.2
36-40 years old	326	36.2
41-45 years old	197	22.0
46-50 years old	103	11.4
51-55 years old	37	4.1
Status		
Single	10	1.1
Married	857	95.2
Divorced	23	2.6
Widowed	10	1.1
Religion		
Islam	307	34.1
Buddha	274	30.4
Hindu	282	31.3
Christian	35	4.0
Others	2	0.2
Education		
Never been to school	3	0.3
Primary School	32	3.6
Secondary School	227	25.2
Malaysian Higher School Certificate	54	6.0
Certificate	54	6.0
Certificate	203	22.6
Diploma	279	31.0
Bachelor Degree	38	4.2
Master Degree	6	0.7
Doctoral Degree	3	0.3
Professional Qualification	1	0.1
Others		
Occupation		
Not working	78	8.7
Government	248	27.6
Private	398	44.2
Non-Governmental Organisation	22	2.4
Self-employed	140	15.6
Others	14	1.5
Household Income		
No income	18	2.0
Below MYR1,000	14	1.6
MYR1,001-MYR2,000	51	5.7

MYR2,001-MYR3,000	106	11.8
MYR3,001-MYR4,000	157	17.4
MYR4,001-MYR5,000	143	15.9
MYR5,001-MYR6,000	119	13.2
MYR6,001-MYR7,000	89	9.9
MYR7,001-MYR8,000	84	9.3
MYR8,001-MYR9,000	53	5.9
MYR9,001-MYR10,000	26	2.9
MYR10,001 and above	40	4.4

Reliability Analysis

According to Nunnally (1978), the score of Cronbach's alpha more than 0.70 (α>0.70) is conventionally accepted. Hence, the findings of this study revealed that the reliability of all constructs in examining the relationship between 'parenting practices and styles' and 'child protection and privacy' to prevent the paedophilia issue were assumed. The scores of Cronbach's alpha of all constructs were found more than 0.776; and the highest construct marked the score of 0.950. Table 2 showed the findings of reliability analysis derived from this research.

Table 2: Reliability Analysis

Variables	Number of item	Cronbach's Alpha	Reliability assumed
Child Protection and Privacy (DV)	13	0.950	Yes
Parenting Practices (IVs):			
Parental Involvement	5	0.792	Yes
Parental Monitoring	5	0.776	Yes
Parental Goals, Values and Aspirations	6	0.869	Yes
Parenting Styles (IVs):			
Authoritative Parenting Style	10	0.912	Yes
Authoritarian Parenting Style	10	0.903	Yes
Permissive Parenting Style	7	0.795	Yes

The Relationship between 'Parenting Practices and Styles' and 'Child Protection and Privacy' to Prevent the Paedophilia Issue in Malaysia

As outlined earlier, the main objective of this paper was to examine the relationship between 'parenting practices and styles' and 'child protection and privacy' to prevent the paedophilia issue in Malaysia. In order to answer this objective, this study conducted the Pearson correlation analysis.

The presentation of this section began with the findings of Mean and Std. Deviation derived from this research. The findings showed that parents had high knowledge regarding the rights of children to be protected (Mean=4.6841, Std. Deviation=0.46061). In term of parenting practices, parents showed high commitment in parental involvement (Mean=4.1078, Std. Deviation= 0.83488), parental monitoring (Mean=4.2107, Std. Deviation=0.66488) and parental goals, values and aspirations (Mean=4.5863, Std. Deviation=0.49151). On the other hand, this

research found that among the three types of parenting styles, the majority of parents participated in this research applied authoritative parenting style (Mean=4.3461, Std. Deviation=0.54900), followed by permissive parenting style (Mean=3.3684, Std. Deviation=0.78210) and authoritarian parenting style (Mean=3.1511, Std. Deviation=0.88983).

Further, based on the findings of Pearson correlation analysis, this study found that three categories of parenting practices which were parental involvement (p=0.000, r=0.118), parental monitoring (p=0.000, r=0.208), and parental goals, values and aspirations (p=0.000, r=0.507) have significant relationship with child protection and privacy to prevent paedophilia issue in Malaysia. In term of parenting styles, only two types of parenting styles have a significant influence on child protection and privacy among Malaysian parents to prevent the paedophilia issue which were authoritative (p=0.000, r=0.363) and permissive parenting styles (p=0.000, r=0.176). However, the authoritarian showed a slightly different result (p=0.051, r=0.065). Table 3 showed the findings of Pearson correlation analysis.

Table 3: Relationship between 'Parenting Practices and Styles' and 'Child Protection and Privacy' to Prevent Paedophilia Issue in Malaysia

Variables	Mean	Std. Dev.	DV	PI	PM	PG	AV	AN	PP
Child Protection and Privacy (DV)	4.6841	0.46061	(0.950)						
Parenting Practices (IVs)									
▪ **Parental Involvement (PI)**	4.1078	0.83488	0.118**	(0.792)					
▪ **Parental Monitoring (PM)**	4.2107	0.66488	0.208**	0.059	(0.776)				
▪ **Parental Goals, Values and Aspirations (PG)**	4.5863	0.49151	0.507**	0.195**	0.341**	(0.869)			
Parenting Styles (IVs)									
▪ **Authoritative Parenting Style (AV)**	4.3461	0.54900	0.363**	0.114**	0.304**	0.478**	(0.912)		
▪ **Authoritari**	3.1511	0.8898	0.065	-	0.115*	0.000	-0.064	(0.903	

an Parenting Style (AN)		3		0.119**	*			)	
▪ **Permissive Parenting Style (PP)**	3.3684	0.78210	0.176**	-0.028	-0.001	0.098**	0.219**	0.004	(0.795)

**Correlation is significant at the 0.01 level (2-tailed)
Value in Diagonal is the Cronbach Alpha

Discussion and Conclusion

Research related to the parenting practices and styles in upholding the child protection and privacy in Malaysia can be considered as limited, especially in preventing the issue of paedophilia. This paper proved that the parenting practices have significant relationships with child protection and privacy in the country. Among three categories of parenting practices, Malaysian parents showed high commitment towards parental goals, values and aspirations. According to Marilena (2015), a good communication between children and parents represents a guarantee against abuses and neglect. In the context of this paper, this situation is portrayed that if parents communicate their expectations, internalise their values and express their aspirations towards their children, children's protection and privacy can be strengthened. Marilena (2015) further stated that the parents' capacity to understand their own children will determine their consideration of several aspirations and act accordingly. Although the parental goals, values and aspirations marked a high significant relationship; the findings revealed that Malaysian parents also did not neglected their roles and responsibilities in getting involved as well as undertaking a regular monitoring of their children's daily lives.

Further, the findings of this research revealed that among the three parenting styles, Malaysian parents prefer to adopt the authoritative parenting style, as compared to permissive and authoritarian parenting styles. This was consistent with the above findings related to the high commitment of parents towards the application of the three parenting practices. This is because according to Sidebotham (2013), authoritative parenting style combined high levels of affection, nurture and responsiveness with high expectations, incorporating boundaries and discipline. The author further described that authoritative parenting style can be expanded to incorporate with three important domains which are authority (involves confidence and competence), empathy (the ability to recognise and respect the child's rights and needs) and humility (recognise limitations and use skills and strengths). Based on the findings, this paper argued that the ways and approaches undertaken by parents in protecting their children from the paedophilia issue are influenced by their parenting styles, either authoritative, permissive or authoritarian.

The above discussion portrayed that Malaysian parents are becoming more aware and responsible towards their children's protection and privacy. This study believed that the complexity of social problems involving children urges Malaysian parents to be more sensitive and responsive, especially in preventing the issue of paedophilia. The seriousness of paedophilia issue is undeniable. In worst case scenario, children can be silently abused by sexual predators without anyone's noticed (Pillay, 2016; Merdien et al., 2011). In this situation, the internet has played a significant role through the production of child pornography materials. An article reported by Ruxyn (2018) showed that a total number of 17,333 IP addresses involved with child pornography came from Malaysia and this is the highest among the Southeast Asian countries.

Other than that, The Star (2018) claimed that more than 60% of Malaysian children spend time in online chat rooms every day, such as Facebook, WhatsApp, WeChat and others; and three of four children are willing to exchange their information for "goods and services" (pictures, videos and sex services). In relation to the context of this paper, although the findings of this research showed that Malaysian parents have undertaken good parenting practices and adopted the best parenting style; however, this situation also provides an indication that Malaysia is in a serious child abuse issue. And without any other option, parents, as the closest persons to children should protect and secure their children's privacy from being victimised by the 'silent monsters' such as paedophiles.

Addressing the complex child abuse issue such as the paedophilia issue is not easy. It requires all parties including government agencies, non-government agencies, community, society, family and others to play the relevant roles and responsibilities. However, this paper argued that parents have the biggest responsibility towards their children. There is nonetheless one question to ponder: 'What if parents abuse their own children?". As suggested by Ahmad (2018) in her book, 'all children are our children—we don't have to be their biological parents to take action to protect them. This is because protecting children is everyone's responsibility'.

Acknowledgement

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STUDENTS' PERCEPTION OF HEI'S ROLE OF PRODUCING HOLISTIC GRADUATES

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Abstract: *Higher education institutions (HEIs) largely aim to produce holistic graduates, best in both worlds of academic and non-academic aspects. Although numerous literatures have identified and described "holistic education", it remains an issue if the students actually understand and appreciate the said term. Accordingly, this study seeks to investigate the students' perception of HEI's role of producing holistic graduates. Therefore, the objectives of this paper are two-folds, firstly, what are the characteristics of holistic graduates? And secondly, how do students perceive the academic and non-academic programs at the HEIs towards producing holistic graduates? Engaging in mixed approaches of quantitative and qualitative, this study investigates the students' perception of HEI's role of producing holistic graduates. An online survey was administered on 367 students of a chosen HEI. The findings reveal that majority of the students are satisfied with the academic and non-academic programs offered at the HEI, as well as their perceived concept of the "holistic graduate" itself. Hopefully, the paper would shed light onto further research in the area of students' education and higher learning education generally.*

Keywords: *Higher Education Institution, Holistic Graduates, Holistic Education*

Introduction

The basic principles of holistic education are to provide an education that facilitates the students'development, honouring each students' individual needs and abilities, interconnecting experience and reality, autonomy to facilitate appropriate learning, outcome-based education, and students-centered learning (Hare, 2006). Although the working definition of holistic education remains elusive and unclear, several studies attempted to discuss the aspect that encompass this approach. For example, holistic education emphasized on the relationship and interconnectedness between an individual and the community around us (Clark, 1988). Furthermore, individuals have a personal responsibility towards the well-being of their community and the holistic educational approach demands us to respect that.

On a different perspective, the holistic approach in education warrants an individual to develop a relationship and transferability between the areas of their knowledge and expertise with the world and others around them (Hare, 2006). In return, the student will appreciate individual differences and ability, which will promote the value of teamwork and group responsibilities in their future undertakings. Understanding the value of holistic approach in education will allow educators to nurture the behaviours that could be manifested through it. Students will also benefit from holistic education where it leads to their personal development and growth through this educational intervention.

Based on this premise, this study aims to investigate the students' preception of the HEI's role of producing holistic graduates.

Research Objective

The objectives of this study are two-folds:

1) What are the characteristics of holistic graduates?
2) How do students perceive the academic and non-academic programs at the HEIs towards producing holistic graduates?

Conceptualizing Holistic Education

A number of key terms are engaged in this research, particularly surrounding the concept of holistic education. Among others, the term holistic itself, as well as various academic and non-academic programs at HEIs.

Holistic

In essense, the HEIs are actually aimed at producing graduates who are balanced in their knowledge and skills, both academic and non-academic. Accordingly, Merriam-Websters Dictionary (1996) defined 'holistic' to be "relating to or concerned with wholes or with complete systems rather than with the analysis of, treatment of, or dissection into parts. Along the same line of thought, Cambridge Dictionary (2008) defined the term as 'dealing with or treating the whole of something or someone and not just a part. Simply put, the term 'holistic'means to balance between academic and non-academic knowledge.

Academic Programs

In this regard, among the academic programs engaged by the students at HEIs are:

- Outcome-based education - it is the type of teaching and learning focusing on the outcome intended by the course. For instance, the course intends for the students to enhance their communication skills, then the learning activities would involve various tasks aimed at enhancing the communication skills of the students (Midraj, 2018).
- Blended learning - it is the type of teaching and learning combining both online learning as well as face-to-face learning. Past literature have shown enhanced performance of the students upon engaging in the blended learning method (Jani, et. al, 2018).
- Problem-based learning - when students engage in problem-based learning, their learning activities would comprise of mostly of issues, problems and situations to enhance the students problem solving skills (Savery & Duffy, 1995).

- Adoption of Web 2.0 - teaching and learning also is moving towards increased engagement of WEB 2.0 tools, such as online gamification, Padlet, multimedia learning as well as online assessment tools.
- Mobility - it is the learning type which allows for students exchange between one HEI to another HEI. This would include both inbound mobility (where students from other HEI come to that respective HEI) an outbound mobility (where students from that respective HEI go to another HEI). Past literature have reported increased exposure and learning experiences gathered by students involved in mobility programs (Verbik & Lasanowski, 2007).
- Practicum - practicum or industrial training is the attachment program imposed on the students of HEIs, often as part of the curriculum requirements of the academic program. Through this method of learning, students would be attached with industrial offices and engage in hands-on learning with actual cases under the guidance of the industrial managers (Lockwood-Rayermann, 2003).

Non-Academic Programs

On the other hand, among the non-academic programs engaged by the students at HEIs are:

- Student activities - students involve in various activities, such as industrial talks, career advisory workshops, games and various other activities - all aim towards enhancing the teamwork, project management and communication skills of the students at HEIs.
- Cultural activities - other than that, students also engage in various cultural activities at HEIs such as theater plays, cultural performances, all aimed at enhancing the creativity of the students.
- Sports - sports activity are also engaged by the students, such as horse-riding, go-karting, canoeing, cycling, swimming and various other sports activities. All these are aimed at enhancing the students' teamwork and communication skills.
- Community services - it is the type of activities which involve any chosen community for the purpose of giving back to the community, such as visit to old-folks homes, clean and improve the beach area, and other sort of community services.
- Enterpreneurship - and the last but not least, the students also engage in enterpreneurship activities, such as participating in car-boot sales, food kiosks, and other activities, particularly aimed at enhancing the enterpreneurship skills of the students.

Combining both the learning approaches of academic and non-academic, students of HEIs are expected to enhance their potential of becoming holistic graduates, in line with the HEI's role of producing holistic graduates and holistic leaders.

Methodology

The methodology employed in this study is mixed between qualitative and quantitative. The instrument engaged was online survey administered on 357 students of a chosen HEI, which is a public higher learning institution located at the northern region of Malaysia. The first part of the survey explored the conceptualisation of the term 'holistic' on the part of the survey respondents, while the second part explored the students' perception of various items of both academic and non-academic nature, such as enterpreneurship programs and communication enhancement.

The data which was gathered was scrutinised and analysed using qualitative and quantitative methods. The findings are produced in the following section of "Findings & Discussion".

Findings & Discussion

Based on a survey result collected from a total of 357 UUM students who have voluntarily participated in the survey, the following findings were gathered:

Characteristics of holistic graduates

The survey posted an open-ended question for the first research question of: What are the characteristics of holistic graduates? The following word cloud produced in **Figure 1** below was generated to to capture the key terms of the characteristics of 'holistic' graduates. Among the glaring terms found to be the characteristics of holistic graduates are: communication, brave, leader, honest, determination and knowledge.

Figure 1. Characteristics of Holistic Graduates

Students' Perception of HEI's role of producing holistic graduates

For the second research question os: How do students perceive the academic and non-academic programs at the HEIs towards producing holistic graduates? Four statements were presented to the respondents, upon which the survey provided a five-likert scale option of:

- Agree very much
- Agree
- Neutral

- Disagree
- Disagree very much

The findings from the survey is presented in the following **Figure 2**.

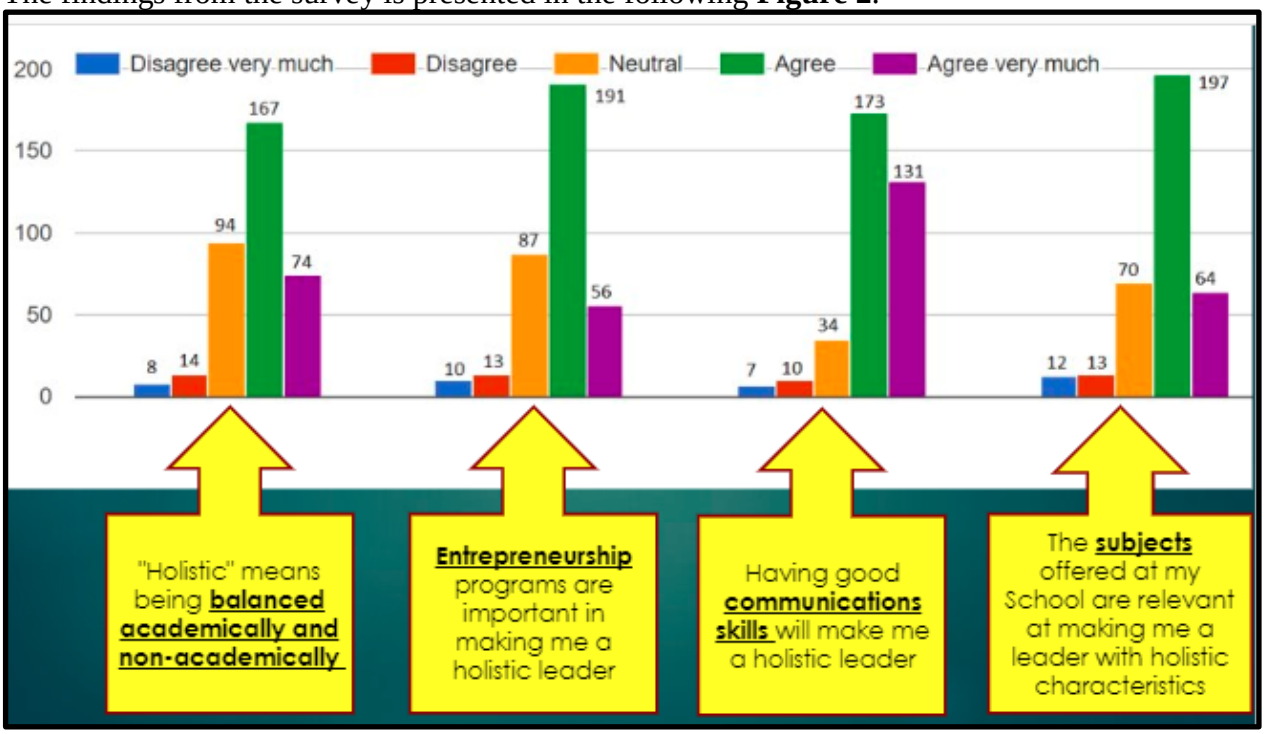

Figure 2. Students' Perception of HEI's Role of Producing Holistic Graduates

With regards to the second research question: How do students perceive the academic and non-academic programs at the HEIs towards producing holistic graduates? The following findings were found:

On the first statement of: *"Holistic" means being balanced academically and non-academically*, a total of 241 respondents agree that 'holistic' means balanced academically and non-academically. Only 22 respondents do not agree with such proposition. Whereas 94 respondents give neutral opinion, probably because they do not have any information about the concept of holistic students.

On the second statement of: *Entrepreneurship programs are important in making me a holistic leader*, a total of 247 respondents agree with the second proposition that entrepreneurship programs are important in making a student a holistic leader. Whereas, 23 respondents do not agree, and 87 respondents give neutral opinion.

On the third statement of: *Having good communication skills will make a holistic leader*, a total of 304 respondents agree that good communication skills will make a student a holistic leader. 17 respondents do not agree with this, whereas 34 respondents are neutral.

On the fourth statement of: *The subjects offered at my school/faculty are relevant at making me a leader with holistic characteristics*, 261 respondents agree that the subjects offered at UUM schools are relevant in making a student a leader with holistic criteria. 25 respondents were not agree with this proposition and 70 respondents are neutral.

Conclusion

The study sought to achieve the following two objectives: First, what are the characteristics of holistic graduates? And second, how do students perceive the academic and non-academic programs at the HEIs towards producing holistic graduates? The findings reveal that majority of the students are satisfied with the academic and non-academic programs offered at the HEI, as well as their perceived concept of the "holistic graduate" itself. In essence, for the first research objective, the concept of "holistic" was found to be mostly characterised by: communication, brave, leader, honest, determination and knowledge. For the second objective, majority of the respondents perceived that "holistic" means being balanced academically and non-academically, entrepreneurship programs are important in making me a holistic leader, having good communication skills will make a holistic leader and that the subjects offered at my school/faculty are relevant at making me a leader with holistic characteristics. Accordingly, both research objectives are achieved in this study. Hopefully, the paper would shed light onto further research in the area of students' education and higher learning education generally.

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THE CHALLENGES OF IMPLEMENTING INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) BASED ONLINE LEARNING IN CHINESE INDEPENDENT HIGH SCHOOLS (CIHS) IN MALAYSIA

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Abstract: *The use of ICT in the teaching and learning process is one of the most discussed topics in education for the past twenty years. It has, particularly, put education in Chinese Independent High Schools (CIHS) in Malaysia into a more challenging place due to their distinctions that revolve around self-funding, medium of instruction and syllabus. Past studies have indicated that most teachers had positive attitudes towards ICT integration in education. However, there are also some barriers that have prevented them from fully utilizing ICT in schools. This study focuses on investigating teachers' perceptions and challenges faced while using ICT based online learning in the process of teaching and learning. A total of 180 questionnaires were randomly distributed to CIHS English teachers in West Malaysia. The questionnaire was adapted from Qasem & Viswanathappa (2016) and Salehi & Salehi (2012). A pilot study was also done to ensure the reliability and validity of the instruments. Besides using descriptive analysis, t-Test and One-Way ANOVA were also used to analyse the data. About two-third of the respondents in this study had the awareness towards the use of technology in education and perceived positively towards ICT in the teaching and learning process. The major challenges faced while using ICT included unstable internet connection, lack of training, lack of support from the school, lack of time. In order to ensure a more successful implementation of ICT in education, appropriate training on the usage of ICT in teaching should be provided. Apart from this, adequate ICT resources must be made available for teachers. This study might be significant to the educators, researchers and school managements to help develop useful guidelines to assist the teachers in overcoming the challenges of using ICT in teaching and learning.*

Keywords: *Information and Communications Technology (ICT), Online Learning, Virtual Learning Environment (VLE), Perceptions, Challenges*

Introduction

According to the Malaysia Educational Blueprint (2015-2025), there are 3.035 billions of internet users in the world. This helps to promote online learning and has significantly enhanced the implementation of Information and Communication Technology (ICT) in education. ICT, a scientific tool that offers effective teaching and learning process for teachers and students, is very much connected to our every day's life (Aktaruzzaman, Shamim & Clement, 2011). The use of

ICT helps to improve the interaction between teachers and students (Meenakshi, 2013). A past study also mentioned that the use of ICT has grown rapidly and it enhances the potential of teaching and learning in different stages (Yunus, et al., 2013).

For the past twenty years, the use of ICT in the teaching and learning process was one of the most discussed topics in education (Ghavifekr et al., 2014). The purpose of this study is to focus on the use of ICT based online learning among English teachers in Chinese Independent High Schools (CIHS) in West Malaysia. A study by Jayanthi and Kumar (2016) mentioned that it is important to learn English as English has become one of the most common languages used all over the world. In fact, English is a compulsory subject that students are required to learn as a second language during their primary and secondary levels in Malaysia (Hiew, 2012). However, the use of ICT in English Language teaching and learning is still far from encouraging (Yunus, et al., 2013) because of the challenges faced by teachers.

CIHS were initiated by the Chinese community (Tan & Teoh, 2014) since 1957. They are affiliated to the United Chinese School Committees' Association (UCSCA), also known as Dong Zong, as well as the United Chinese School Teachers' Association (UCSTA) or Jiao Zong (Tan & Teoh, 2014). Until 2014, a total of 60 CIHS were set up in Malaysia (Low, 2015). The ICT integration in schools has significantly put CIHS's education in Malaysia into a more challenging place due to their self-funding status, the medium of instruction and the syllabus used. Despite that CIHS recognize the effectiveness of using ICT in teaching and learning process, CIHS are facing more challenges on the ICT integration compared to those government schools in Malaysia as they are considered as non-profit schools and they do not receive funding from the Malaysian government (Low, 2015). A study by Kumutha and Hamidah in 2014 stated the major challenges faced by English teachers in CIHS included insufficient ICT knowledge, inadequate internet coverage, bundles of heavy workload on the teachers and so on. Nonetheless, there were limitations in the study as it only focused on 12 English teachers in one single school (Kumutha & Hamidah, 2014). Thus, this study intends to further investigate on English teachers' perception and the major challenges to ICT integration in CIHS in West Malaysia on a wider scope.

Research Questions

1. What is CIHS English teachers' perception on the implementation of ICT based online learning in West Malaysia?
   (a) Does teachers' gender influence their perception on the implementation of ICT based online learning?
   (b) Does teachers' teaching experience influence their perception on the implementation of ICT based online learning?
2. What are the challenges faced by English teachers in CIHS in West Malaysia on the implementation of ICT based online learning and teaching?

Literature Review

The Use of ICT as A Teaching and Learning Tool in Education

A past study by Yunus, Salehi and Chenzi (2012) which focused on the use of ICT in teaching English as a Second Language (ESL) writing class agreed that the technological way of learning allowed students to explore with Virtual Learning Environment (VLE). VLE has practically supported independent learning and encouraged students to learn through online (Baker & Gossman, 2013). Students can improve their learning quality (Ghavifekr et al., 2014) if their

teachers use ICT in the classroom. A past study by Malaysia's researchers concluded that most teachers had positive perception that ICT had in fact provided them benefits in their teaching with updated materials available on the internet (Ghavifekr & Ibrahim, 2015). However, teachers' personal characteristics like their gender and teaching experience in education might influence their perception on ICT integration in schools (Buabeng-Andoh Charles, 2012). Teachers with more years of service generally belong to the older generation who preferred traditional way of teaching over the advance technological way. In a nutshell, although teachers have positive attitudes to use ICT in classroom, however, some internal and external challenges might still discourage them to teach by using ICT (Md. Shah & L. Empungan, 2015).

The Challenges of Using ICT as A Teaching and Learning Tool in Education

A study by Gryzelius (2015) with interview sessions found that generally teachers faced challenges like insufficient internet coverage, teachers' lack of interest and lack of trainings on ICT. A study by Raman and Halim Mohamed (2013) found that teachers in Secondary schools in Malaysia only used ICT tools for basic purposes such as preparing PowerPoint slides and searching online information but students were not actually given the opportunity to explore the new technological way of learning. Another study has concluded that because of the bundle of workload, teachers had insufficient time to use ICT to prepare teaching materials (Tian & Correos, 2014). Other reasons include schools not provide enough ICT resources and training programs for teachers (Tian & Correos, 2014) and this has prevented them to adopt ICT in their lessons. This study aimed to investigate the major challenges to the use of ICT in schools and intend to recommend some useful guidelines to encourage the use of ICT in Malaysian education.

Conceptual Framework

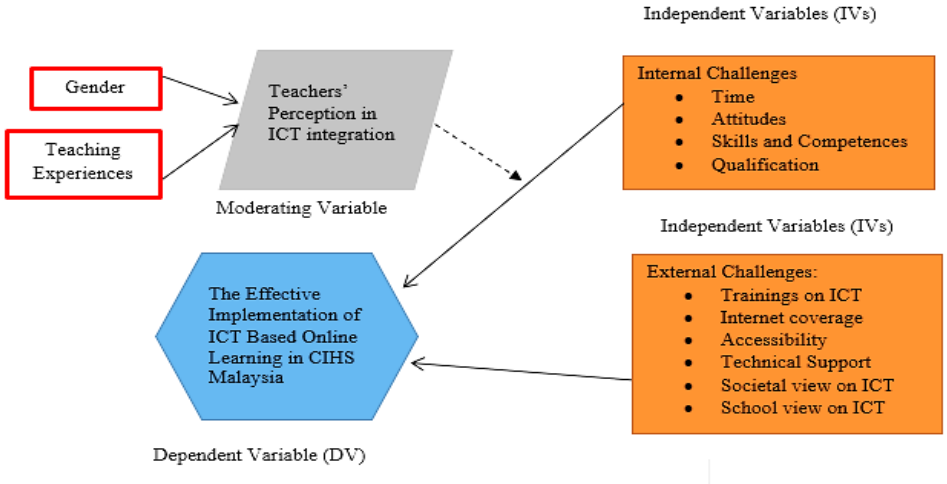

Figure 1: Conceptual Framework

Figure 1 is the conceptual framework in this study. The effective implementation of ICT based online learning in CIHS Malaysia is the Dependent Variable (DV) while those internal and external challenges are known as Independent Variables (IVs). The internal challenges include time, attitudes, skills and competences as well as teachers' qualification. The external challenges refer to trainings on ICT, internet coverage, accessibility, technical support and also societal view and school view on the use of ICT. Teachers' perception in this study is known as the moderating

variable as it indirectly influences the teachers' willingness to use ICT in classroom. Study has indicated that teachers who have negative perception on ICT implementation normally do not fully engage themselves to use ICT in teaching (Sabzian & Gilakjani, 2013). Teachers' perception might also indirectly influence the effectiveness of using ICT in education (Aslan & Zhu, 2016). This study aimed to determine whether gender and teaching experience influence teachers' perception on the ICT integration in schools. A study by Buabeng-Andoh Charles (2012) showed that teachers' perception might be influenced by their personal characteristics.

Methodology

In this study, quantitative method was used to collect data. A total of 180 questionnaires with 5 point likert-scales ranging from "Strongly Disagree" to "Strongly Agree" were randomly distributed to 12 CIHS in West Malaysia. Due to time constraints and financial limitations, this study did not include CIHS English teachers in East Malaysia.

The questionnaires in this study were adapted from two past studies. For the perception part, the questions were adapted from a past study by Qasem and Viswanathappa (2016) which had focused on teacher's perception on ICT integration through blended learning while another past study by Salehi and Salehi (2012) was adapted to investigate the main challenges that teachers faced on ICT integration in schools.

Statistical Package for the Social Sciences (SPSS) version 24 was used to analyse the results. T-test was used to compare male and female teachers' perception on the ICT integration in schools while the one way ANOVA test was used to analyse how teachers' teaching experience influence their perception to use ICT in education.

Pilot Test

Twenty five CIHS English teachers from West Malaysia were randomly selected for the pilot study before the actual questionnaire was conducted to check for reliability of the data. The results for both perception and challenges were shown as below:

Table 1: Pilot Study Reliability Test- Perception

Case Processing Summary

		N	%
Cases	Valid	25	100.0
	Excluded [a]	0	.0
	Total	25	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.862	25

Table 2: Pilot Study Reliability Result- Challenges

Case Processing Summary

		N	%
Cases	Valid	25	100.0
	Excluded [a]	0	.0
	Total	25	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.896	10

Table 1 and 2 above showed the reliability results on teachers' perception and challenges on ICT integration in school. The Cronbach's Alpha in both categories were more than 0.7 and this showed that the questionnaire used in this study was reliable and suitable for the targeted respondents. A post study reliability test was also carried out and it showed a consistent result of more than 0.7.

Results and Discussion

In this study, the questionnaires are divided into three parts. Part A is the respondents' demographic background and their skills and competences on the use of ICT. Part B investigates the English teachers' perception on ICT. Part C looks into the challenges on ICT integration in schools. All the results were analysed by using descriptive analysis and SPSS version 24 for T-test and One Way ANOVA test.

Respondents' Demographic

Table 3: Respondents' Demographic Results

Factors	Frequency	Percentage (%)
Gender		
Male	40	22.2
Female	140	77.8
Total	180	100.0
Teaching Experiences		
< 1 Year	22	12.2
1-5 Years	79	43.9
6-10 Years	41	22.8
>10 Years	38	21.1
Total	180	100.0
Qualification		
Diploma	20	11.1
Degree	134	74.4
Master	26	14.4
PHD	0	0
Total	180	100.0
School Sizes		
Large	135	75.0
Medium	41	22.8
Small	4	2.2
Total	180	100.0
Skills And Competences (Multiple Choice)		
Microsoft Word	176	97.7
Microsoft Excel	140	77.7
Power Point	165	91.6
Internet	169	93.8
Email	161	89.4
Total no. of respondents	180	NA

In this study, 77.8% respondents were female teachers. Among all 180 respondents, majority of them (43.9%) have one to five years teaching experiences. 75% respondents came from large size schools due to their stronger financial ability to provide ICT tools in teaching. Also, there was no PhD holders among the respondents, 74.4% of them were degree holders. Lastly, majority of the English teachers in CIHS know how to use Microsoft Word, Power Point, Internet and Email.

Teachers' Perception on ICT Integration in Schools

Based on the results shown in table 6 (appendix A), more than two-third of the respondents had positive perception on ICT integration in schools. They believed that online resources were easier to use and were quite useful for the subjects they teach. A past study also found that teachers were more motivated to teach their students in classroom as ICT provided sufficient information and materials online (Ziden et al., 2011). A study by Prasad, Lalitha and Srikar (2015) concluded that ICT had changed the way of learning from teacher-centred to student centred. More than half of the English teachers agreed that students gained better understanding on the subject while using online software, pictures and applications and students engaged themselves more in the lessons and improved on their quality of learning. A similar study also pointed out that students had obtained better results in their studies and this would help to support their future employability (Dang, 2011). More than two-third of the respondents agreed that ICT had made their work more effective when they were able to search, choose and evaluate teaching materials

from different websites. The results revealed that teachers' perception on ICT was significantly influenced by their skills and competences. A past study has indicated that if teachers had the basic ICT skills and abilities, it would encourage them to adopt ICT tools during their lessons (Nang, 2013). The results from this study showed that majority of the English teachers know how to use ICT tools and they often helped other teachers to use the technology. This study has found that a majority of the English teachers in CIHS from West Malaysia have positive perception towards ICT. They opined that ICT was not a frustrating experience when they used it in teaching and learning purposes. A minority of the English teachers who held negative perception felt that the trainings offered to them were not enough. Although in the overall, most teachers have positive perception on ICT integration, there were inevitably some major challenges that had hindered them to use ICT.

T-Test on gender and perception on ICT integration in schools

Table 4: Independent T-Test Results

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Perception	Male	40	3.6540	.35299	.05581
	Female	140	3.6383	.37593	.03177

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Perception	Equal variances assumed	.084	.773	.236	178	.814	.01571	.06652	.11555	.14698
	Equal variances not assumed			.245	66.416	.807	.01571	.06422	.11249	.14392

In this study, 77.8% respondents were female compare to only 22.2% male respondents. However, the results of independent sample t-test showed that there was no significant gender differences in teachers' perception on the use of ICT in Malaysian education, t (178) = 0.236, p= 0.814. A similar past study also concluded that male and female teachers hold the same perception on the implementation of ICT in schools (Muslem, Yusuf & Juliana, 2018).

One Way ANOVA Test on teaching experience and perception on ICT integration in schools

Table 5: One Way ANOVA Results

Descriptive

perception

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Less than one year	22	3.6655	.35575	.07585	3.5077	3.8232	2.80	4.36
1 to 5 years	79	3.6729	.35349	.03977	3.5937	3.7521	2.76	4.84
6 to 10 years	41	3.6741	.37604	.05873	3.5555	3.7928	2.48	4.40
More than 10 years	38	3.5284	.39698	.06440	3.3979	3.6589	2.72	4.28
Total	180	3.6418	.37005	.02758	3.5874	3.6962	2.48	4.84

ANOVA

perception

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.620	3	.207	1.523	.210
Within Groups	23.891	176	.136		
Total	24.511	179			

An analysis of variance showed that overall, teachers' teaching experience on the perception on ICT integration in schools had no significant differences, F (3,176) = 1.523, p= .210. It means that teachers' perception on the use of ICT would not be affected by their teaching experience. A latest past study also found that there was no significant differences on teachers' perception and their teaching experience (Muslem, Yusuf & Juliana, 2018). Nevertheless, another past study by Basargekar & Singhavi (2017) had a different finding that those teachers with more teaching experiences felt unsure when they use new technologies to teach and therefore, might cause them to have negative perception on ICT.

Challenges Faced by Teachers on ICT Integration in Schools

Table 7 in appendix B showed the teachers' challenges on ICT integration in schools. The major challenges faced by English teachers in CIHS in West Malaysia included insufficient trainings provided, lack of time to learn and use ICT during lessons, poor internet coverage and inadequate technical support by the school management. A past study revealed that teachers needed to complete all their lessons within an academic year and therefore, they could not have sufficient time to use ICT in their lessons (Kumutha & Hamidah, 2014). Teachers felt that it was not necessary to use ICT due to their lack of knowledge on technologies. A study by Kumutha and Hamidah (2014) showed that if teachers didn't attend professional trainings related to ICT, they tended to lose their confidence to use ICT in their lessons. Furthermore, a stable internet connection helped teachers to use ICT in classroom easier. A past study by Gebremendhin and Fenta in 2015 mentioned that teachers were unable to use ICT during their lessons due to poor internet connection. About half of the respondents agreed that the technical support from school management was rather inadequate. A study by Nang (2013) stated that teachers felt unsure to

use ICT if the school management didn't provide adequate technical support and regular maintenance. Other challenges such as colleagues' negative perception, societal view and teachers' qualification did not really influence teachers' use of ICT in schools. Only a minority of the respondents felt that lower qualification discouraged them to use ICT in their lessons.

Conclusion and Recommendation

Past studies related to this topic have been carried out by many researchers, particularly on the effectiveness of ICT as it helped to improve the way of teaching and learning (Khan, Hossain, Hasan & Clement, 2012). This study aimed to find out the perception and challenges on ICT integration among English teachers in CIHS. The questionnaire results indicated that more than two-third of the English teachers had positive perception towards ICT while only one-third preferred the conventional way of teaching. A past study has indicated that teachers' attitude is the key factor to successfully integrate ICT in education (Hue & Jalil, 2013). Another past study also concluded that teachers' perception influenced their willingness to use ICT tools in teaching (Gebremedhin & Fenta, 2015). Other than that, this study has also identified the main challenges faced by English teachers while using ICT, including lack of professional trainings, lack of support by school management, lack of time for preparation of lessons as well as poor internet connection. In conclusion, the result in this study has revealed that when teachers have positive perceptions on ICT integration, it would ultimately promote and enhance the use of ICT in schools.

Based on the results in this study, it is strongly recommended that teachers should be provided with more ICT trainings to enhance their effectiveness and gaining the advantages of teaching and learning using ICT (Ziden et al., 2011). A study by Fu (2013) has concluded that the use of ICT for teachers to prepare lessons have changed their actions and purposes in teaching. For the same reasons, school management should provide professional ICT training to teachers to improve their way of teaching (Bhasin, 2012). To overcome the problem of little access to ICT which has hindered teachers' willingness to use ICT, school managements should ensure that adequate infrastructures and facilities are provided to teachers and students (Bhasin, 2012). The existing facilities should be checked and updated regularly to ensure that they are able to run smoothly (Bhasin, 2012). These results are significant to the educators, researchers and school management to help develop useful guidelines to assist the teachers to overcome the challenges while using ICT in the teaching and learning process. For more in depth information, the researcher suggests that interview sessions should be included in future studies on the integration of ICT in schools so as to provide more comprehensive solutions to overcome the challenges faced by teachers while using ICT in teaching. It is also recommended to include those English teachers in East Malaysia in future studies in order to explore additional information on the implementation of ICT in Malaysia education.

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Appendixes

Appendix A

Table 6: Teachers' Perception on ICT Integration in Schools

No.	Questions	1	2	3	4	5
1.	**It is easy for me to manage a course by using internet applications.**	0 (0%)	13 (7.2%)	36 (20.0%)	**91 (50.6%)**	**40 (22.2%)**
2.	**I think that the internet applications and resources are available for my subjects.**	0 (0%)	12 (6.7%)	23 (12.8%)	**100 (55.6%)**	**45 (25%)**
3.	I am aware of the opportunities that computer offer.	1 (0.6%)	4 (2.2%)	25 (13.9%)	110 (61.1%)	40 (22.2%)
4.	I believe that the communication tools (e.g., mail, forum, Blog, and chat) will make communication with my peers and students easier.	0 (0%)	9 (5%)	31 (17.2%)	105 (58.3%)	35 (19.4%)
5.	I can evaluate and select new information resources and technological innovations based on their appropriateness to specific tasks.	0 (0%)	7 (3.9%)	52 (28.9%)	91 (50.6%)	30 (16.7%)
6.	I think that I can use ICT for instructional design and class room activities more effectively day by day.	0 (0%)	7 (3.9%)	41 (22.8%)	99 (55%)	33 (18.3%)
7.	I can discuss diversity issues related to electronic media.	2 (1.1%)	11 (6.1%)	76 (42.2%)	68 (37.8%)	23 (12.8%)
8.	**I think that ICT integration includes supporting various student learning styles and to personalize learning.**	0 (0%)	6 (3.3%)	33 (18.3%)	**110 (61.1%)**	**31 (17.2%)**
9.	**I believe that using content-specific tools (e.g., software, simulation, graphing calculators, Web tools) to support learning.**	0 (0%)	4 (2.2%)	38 (21.1%)	**108 (60%)**	**30 (16.7%)**
10.	**I think that using ICT in learning increases the interest of students toward courses.**	0 (0%)	2 (1.1%)	28 (15.6%)	**107 (59.4%)**	**43 (23.9%)**
11.	I think that using ICT for instructional design increases the quality of courses.	0 (0%)	6 (3.3%)	54 (30%)	93 (51.7%)	27 (15%)
12.	I think that ICT usage makes it easier to prepare course materials.	0 (0%)	11 (6.1%)	28 (15.6%)	114 (63.3%)	27 (15%)
13.	It is hard for me to explain the use of	16	76	45	34	9

	computer applications to my students.	(8.9%)	(42.2%)	(25%)	(18.9%)	(5%)
14.	I think that there is inadequacy of the courses of technology offered to teachers.	6 (3.3%)	27 (15%)	57 (31.7%)	76 (42.2%)	14 (7.8%)
15.	I think technology makes effective use of class time.	2 (1.1%)	9 (5%)	38 (21.1%)	108 (60%)	23 (12.8%)
16.	I think I can use a variety of media and formats, including telecommunications, to collaborate, publish, and interact with peers, experts, and other audiences.	0 (0%)	11 (6.1%)	40 (22.2%)	108 (60%)	21 (11.7%)
17.	**I think that using technology makes it easier to locate, evaluate, and collect information from a variety of sources.**	0 (0%)	4 (2.2%)	25 (13.9%)	**121 (67.2%)**	**30 (16.7%)**
18.	I think that the use of technology tools and information resources for increased productivity, promote creativity, and facilitate academic learning.	0 (0%)	1 (0.6%)	32 (17.8%)	115 (63.9%)	32 (17.8%)
19.	I think that there is lack of interest of teachers in technology usage.	5 (2.8%)	38 (21.1%)	76 (42.2%)	50 (27.8%)	11 (6.1%)
20.	I could use ICT if I had online support on instructional technology design.	1 (0.6%)	7 (3.9%)	33 (18.3%)	121 (67.2%)	18 (10%)
21.	**I believe that acquiring the skills to ICT integration in teaching will be easy to me.**	2 (1.1%)	8 (4.4%)	30 (16.7%)	**117 (65%)**	**23 (12.8%)**
22.	**I believe that using ICT will be a frustrating experience.**	**30 (16.7%)**	**78 (43.3%)**	38 (21.1%)	31 (17.2%)	3 (1.7%)
23.	I believe that I can improve my English language skills using the benefits of ICT.	0 (0%)	5 (2.8%)	39 (21.7%)	101 (56.1%)	35 (19.4%)
24.	My peers often ask me for advice or information on ICT integration in instructional design.	6 (3.3%)	44 (24.4%)	60 (33.3%)	64 (35.6%)	6 (3.3%)
25.	I think that ICT is incompatible with all the courses I teach.	20 (11.1%)	66 (36.7%)	61 (33.9%)	30 (16.7%)	3 (1.7%)

Appendix B

Table 7: Challenges Faced By Teachers on ICT Integration in Schools

No.	Questions	1	2	3	4	5
1.	**Shortage of class time hinders me to use ICT.**	8 (4.4%)	42 (23.3%)	31 (17.2%)	**70 (38.9%)**	**29 (16.1%)**
2.	**There is no enough training provided for teachers about the use of ICT in teaching.**	3 (1.7%)	24 (13.3%)	41 (22.8%)	**90 (50%)**	**22 (12.2%)**
3.	**The insufficient internet coverage in schools prevents me to use ICT.**	6 (3.3%)	48 (26.7%)	23 (12.8%)	**70 (38.9%)**	**33 (18.3%)**
4.	Little access to ICT prevents me to use ICT	9 (5%)	50 (27.8%)	36 (20%)	66 (36.7%)	19 (10.6%)
5.	**Few ICT technical supports at schools discourage me to use ICT in classroom.**	7 (3.9%)	56 (31.1%)	30 (16.7%)	**68 (37.8%)**	**19 (10.6%)**
6.	**Society views about ICT discourage me to use ICT.**	**19 (10.6%)**	**90 (50%)**	50 (27.8%)	18 (10%)	3 (1.7%)
7.	**Colleagues' negative views about ICT hinder me to use ICT in the class.**	**18 (10%)**	**96 (53.3%)**	41 (22.8%)	22 (12.2%)	3 (1.7%)
8.	School views about ICT discourage me to use ICT.	21 (11.7%)	72 (40%)	45 (25%)	31 (17.2%)	11 (6.1%)
9.	Time needed to learn using ICT prevents me to use ICT.	13 (7.2%)	70 (38.9%)	32 (17.8%)	57 (31.7%)	8 (4.4%)
10.	**Requirements of qualifications discourage me to use ICT.**	**36 (14.4%)**	**79 (43.9%)**	41 (22.8%)	28 (15.6%)	6 (3.3%)

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THE ACCEPTANCE OF FASHIONABLE HIJAB STYLE AMONG MALAY WOMEN ACADEMICIANS AT A PRIVATE UNIVERSITY IN PERAK

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Abstract: *Hijab has always been related to religious terms. It is donned in order observe the aurah of a Muslim woman. However, as the fashion industry continue to blossom, fashion has been applied into styling of hijab. As a result, what is supposed to be modest has been turned into a fashion statement instead. With this, the rise of fashion hijab raised an alarming issue that the fashionable hijab styling contradicts with the Islamic rule of modesty. Therefore, this paper[1] aims to find out the acceptance of fashionable hijab trends among Malay women academicians in a private university located in Perak. The research employed in-depth interview of four female Muslim lecturer with age range of 35 to 40 years old. The criteria of selecting the interviewees are Muslim women, hijab wearer, wearing hijab style of the current trend and having purchasing power to buy the latest hijab brands. In this research, it is found that modesty can be affected by fashion when a hijab is donned. The hijab wearers understood the Islamic guidelines of modest clothing but adjustments were made in order to fit fashion into modesty. As a result, fashion has been pushed into being seen as modest, and modest means fashion.*

Keywords: *Hijab, Acceptance, Fashionable, Academician, Perak*

[1] This paper is to fulfill a publication requirement under UTAR Research Fund (UTARRF).

Introduction

According to the Qur'an, aurah signifies various contexts inclusive of a woman's genital area, voice, and everybody part except for the face and palm of their hands (Brenner, 1996) Furthermore, it is mandatory for a Muslim woman to cover herself from strangers and distant relatives with a veil or hijab. This includes their hair, arms, bosom, feet and other parts of the body (Abdullah, 1999). Female adolescents that reach puberty are required to cover their aurah that exposes the female adornment and only allow to show what is observable or else they have to wrap their veils over their chest (Lee & Noor, 2016).

Islamic veil, or more commonly known as hijab is worn by Muslim women to impose Islamic values that are based on the teachings of the Qur'an that aims to protect women and their dignity (Hassim, 2014). Religion is belief whereas religiosity is more about the valuation of the quality and state of mind of an individual which is based on religious values that turn into their conviction. A person's religiosity more or less will have an impact on the one's behaviour (Agorastos, Demiralay & Huber, 2014). As mentioned in the holy Qur'an, religiosity means modest dressing and covering the aurah (Syahrul, 2017). Therefore, wearing hijab is a sign of fidelity to their religiosity and a recognition of the act as God's commandment (Majid, 2016).

The recent spotlight in Muslim fashion has transformed Hijab as a fashion statement which was never meant to be. It somehow diverts the true meaning of wearing hijab. Fashion is an expression of oneself and with the hype hijab more Muslim women tend to experiment blending modesty and personal style into their appearances. Despite the obvious contradiction with the spirit of hijab, a growing number of Muslim women are blending the two. The practice of headscarf is an essence of Islamic value. It is an act of obedience that has been clearly defined in the Qur'an and Sunnah. This recent interest in Muslim fashion also signals the changing dynamics of traditional and modern culture of the Islamic hijab. Modification in Hijab fashion can be accepted in this era as one of fashion styles. Although the stylish hijab cover everything but it does not meet the overall requirement of the hijab. There are guidelines for women to follow in wearing hijab which is covering the chest with apparent that is loose and covering your body and nor revealing the shape of your body. In addition, fashionable attire and accessory that can attract the attention of men should be avoided as it is also against the basic idea of modest clothing in Islam. With this, the significant and actual perspective of Hijab should be reinforced so that no mislead of Islamic values (Boulanouar, 2006, p. 140; Woldesemait, 2012, p. 19; Zulkifli and Fatin, 2013, p. 50; Rizvi, 2014 & Rita, 2017, p. 342).

Problem statement

Hijab in the media today is being portrayed rather fashionably than modestly. Fashion designers have the power to shape society's acceptance toward hijab in terms of Islamic concept of modesty or following the latest style in the fashion industry. For instance, Neelofa's stylist, Diyana Zainul Ehsan mentioned that, "the hijab does not restrict you from being fashionable, with the right and befitting outfit, you can boldly present yourself to the world" (Mustapha, 2017). Melanie Elturk, CEO of Haute Hijab also commented that, "modesty means a lot more than just covering the aurah, it means a sense of shame. The way we converse and act, speak with humility about matters that are private, the way we show ourselves to the public.

Modesty comes from within, not the outfit you are in" (Elturk, 2012). With this, Malaysian women are been affected by the controversy of hijab wearing and tend to look towards beauty as well as fashion of hijab that influences their hijab styling (Hassim, 2014). In addition,

this may create a conflicted mindset upon the Muslim either to uphold a tradition or follow the current society into the ever-changing trend of modernism (Hamzah, Ismail, Mustari & Basiron, 2014). Hence, this research is trying to find out the acceptance of fashionable hijab trends among Malay women academicians in a private university located in Perak. The acceptance of fashionable hijab will be explored in terms of understanding the concept of modesty and the meaning of fashionable hijab wore by women academicians.

Research Objective

To find out the acceptance of fashionable hijab trends among Malay women academicians in a private university located in Perak.

Literature review

Hassan, Anas and Santosa (2015) study, Muslim women understood the concept of dressing modestly. It is found that people will likely to follow all the principle of Islam even if fashion keeps on changing. This shows that they have knowledge in choosing the suitable Muslim clothing. However, Prihandini and Suminar (2017), study found that despite knowing that fashionable hijab does not ideally compliance with Islamic principles, but the respondent felt more confident and complacent in wearing it compared to the traditional hijab. In addition, respondents felt that by wearing fashionable hijabs, it would serve as an encouragement to the non-wearers to start donning a hijab due to it not being old and traditional.

Hasna and Hati (2017), research found that factors that influence donning fashionable hijab are dressing style as well as knowledge about fashion industry. Furthermore, income too factored in one's decision to wear fashionable hijab. Furthermore, Zulkifli and Fatin (2013), research shows that women are also influenced by media in wearing hijab. The respondents agreed that fashionable hijab is a symbol of new creation of the fashion designer than as a pride of Muslim women towards value of hijab wearing. Hence, the trend created confused the purpose of Hijab wearing in Islam. Deniz (2014) research found that Muslim women are grown to the fashion industry and veiling is a symbol of religion that portrayed them differently from others. The rising of fashionable hijab somehow effects the Muslim women in terms of socioeconomic status. The fashionable hijab was condemned by some respondents because it labels them to certain economic status. It is because the branded hijab is mainly attracting women from higher income and those with luxurious lifestyle.

According to Maqsood, Cluver, and Chen (2016) research found that women felt the traditional hijab is uncomfortable and not convenient as it to be adjusted frequently or needed to be pinned in order to keep the hijab in place. Respondents stated that solution required in order to ensure the hijab stabilised on their heads and have a one-piece fabric that allows them to cover both hands and face simultaneously. The materials of traditional hijab are of concern it did not provide the better breathable functions. Modifying hijab in terms of style and material allows women to don hijab appealingly and comfortably. In addition, the new style able to make them more accepted by the non-muslim. Whereas, Afroza (2017), found that wearing of
hijab is considered as being fashionable. The respondents thought that the changing of hijab style could be part of fashion. It is found that, the rising of new hijab trend motivates Muslim women to wear hijab today. It is because they want to embrace the new fashion trend, simultaneously fulfilling their religion obligation.

Methodology

The research employed in-depth interview of four female Muslim lecturer with age range of 35 to 40 years old. The criteria of selecting the interviewees are Muslim women, hijab wearer, wearing hijab style of the current trend and having purchasing power to buy the latest hijab brands. The aim for this research is to explore the meaning of fashionable hijab donned by the respondents. The research able to come up with two main themes namely (1) understanding the concept of modesty in compliance with Islamic guideline and (2) adjusting the concept of modesty in befitting the trendy fashion.

Findings and Discussion

The first finding is understanding the concept of modesty in compliance with Islamic guideline. Modesty in Islam is view in the Islamic guideline on the concept of aurah. The research found that all respondents understood the basis of Islamic guideline of donning hijab modestly. A statement from respondent A stated as follow:

> "Modesty is that we follow in the Quran, which acts as a guideline. If you want to wear a hijab you have to wear it properly, which means that you must lower your hijab until it covers a certain part of your body, so for me this is modesty."

The second finding found that adjustment can be made to the modesty components in order to be fashionable in donning hijab. Islamic guidelines in donning hijab focuses of three components namely, (1) headcovers that is covering of chest; (2) apparel that are loose-fitting and non-transparent which covers the whole body except for the hand and face; and (3) not exposing their accessory to be adorned by others.

Firstly, the lowering of hijab to the length of covering one's chest is adjustable based on the occasion and jewellery that one's accessories with their hijab. The respondents defined accessory into functionality and attractiveness. The functionality of accessory donned with hijab such as pins and brooches is to keep the hijab in place. As for attractiveness, accessories like necklaces and dangling earrings are an option for them to be fashionable in donning their hijab as they dress up for special or fancy occasions. Two of the respondents viewed wearing accessory with their hijab is for the purpose of functionality rather than attractiveness. They stated women these days had the wrong perception toward lavishing accessories on their hijab. This claim can be corroborated from respondent B as follow:

> "A woman covering her aurah is obligated based on our religion, we cannot use excessive accessory in order or to attract or to be attractive to others, but nowadays women misunderstood this concept. I put this small pin just to make my hijab stay, as long as the accessory is small, it is not a big deal.

Whereas, the other two respondents claimed that they can still accessories with necklaces and earrings in order to look attractive if their aurah are covered. However, at times fashion taken higher tolls than being modest. Respondent C evidently said that:

> "Actually, it depends on the occasion that you are attending. If you are going to an annual dinner, then you will wear some jewellery for you to look better. Normally, when you put accessory like the necklace to style your look, you must don your hijab bit shorter that at times you will not be able to cover the chest area fully. This is more about being fashionable than the right way to don hijab in Islam, because Islam requires you to cover the bosom."

Secondly, donning a fashionable hijab allows women to be presentable and set an example to young hijab wearers. It is found that academician opt for fashionable hijab style in order to look presentable as a woman. This statement can be supported by Respondent D:

> "Definitely, because I'm a woman. Even though I'm covering up, I'm still a woman. I still think that makeup is important for me, I still need to wear my hijab nicely with certain styles. In Islam, we say that if you wear hijab in a certain way to attract people, it is wrong. For me, I don't wear it to attract people, it is for my own pleasure and because I want to make myself presentable."

Fashionable hijab styling is emerging rampantly and has influenced women at all ages in their appearance. Trendy style allows young girls starts to donned hijab as part of their religious obligation simultaneously introducing a pleasurable ambience for them to experiment with various types of hijab styling. Respondent A stated that:

> "The new styles of hijab are elegant and sophisticated that allows me to be confident in my appearance as an academician, therefore I want to be a role model and show some good example so that maybe when teenagers look at me, they can don hijab and still do fashion at the same time but in a proper way and presentable."

Based on the findings of this research it can be said that modesty can be affected by fashion when hijab is don. The hijab wearers understood the Islamic guidelines of modest clothing, but adjustments were made in order to fit fashion into modesty. At the end of the day, the acceptance of fashionable hijab that are not compliance with Islamic modesty is conform by the society. Shaheen, Bradley & Chi, (2015) stated that female Muslims are aware of the needs to dress up modestly and the guidelines of wearing the hijab, however they are also influenced by Western culture and the increased need to enhance their beauty by society standards. Muhammad & Kalthom (2015) further claim that Muslim designers started blending hijab style with the latest fashion that may misled the true meaning of donning hijab. All in all, wearing a hijab is supposed to be a sign of fidelity to religiosity and recognition of the act as God's commandment but fashion designers continue to make a contemporary and stylish hijab that contrasted the modesty components which conform by the society acceptance in donning the fashionable hijab (Majid, 2016; Bohwon & Bundhoo, 2016).

Conclusion

The blooming of fashion industry has impacted the styling of hijab. Due to this, the Islamic concept of modesty has been redefined based on the societal acceptance towards fashionable

hijab. It is because the hijab wearers tend to adjust the modesty component into their fashion but when it is not suitable then they weight their appearance more on being fashionably rather than modestly. As a result, fashion has been pushed into being modest, and modest means fashion.

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SOLVING DUAL FUZZY NONLINEAR EQUATIONS VIA MODIFIED STIRLING'S METHOD

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Abstract: *Stirling's method is a root finding method designed to approximate a locally unique fixed point and cannot be used to solve fuzzy nonlinear equations. In this paper we present a modified Stirling's method for solving dual fuzzy nonlinear equations. The fuzzy coefficient is presented in parametric form. Numerical results on some benchmark problems indicate that the proposed method is efficient*.

Keywords: *Fixed point, fuzzy parametric form, dual fuzzy nonlinear equation.*

Introduction

One of the most important problems in computational mathematics is solving nonlinear equations of the form

$$F(x) = 0. \qquad (1)$$

The problem of solving these kinds of problems arises in diverse areas such as engineering, mathematics, computer science and social science. However, the parameters of these nonlinear equations are usually represented by fuzzy numbers rather than crisp numbers. Therefore, the solution depends on the parametric form of the fuzzy nonlinear equation. The concept of fuzzy numbers was first presented by Zadeh [6]. However, according to fuzzy arithmetic, dual fuzzy nonlinear system cannot be replaced by a fuzzy nonlinear system [2]. Also, analytic solutions are often not available for most type of fuzzy nonlinear equations and were such method exists, like Buckley and Qu [3, 7] they are not suitable for solving systems such as

(1) $ax^5 + by^4 + cx^3 + dy^3 + ex^2y^2 + f = g$
(2) $ax^2 + b = d$
(3) $x - cosy = p$
(4)

Where $a, b, c, d, e, f, g \; and \; p$ are fuzzy numbers. Hence, numerical iterative methods are best suited for this kind of problems. However, most numerical methods considered require the computation and storage of either the Jacobian or approximate Jacobian at every iteration. For example, Abbasbandy &Asady[11] consider newton's method for solving fuzzy nonlinear

equation. Tavassoli Kajani et al [5] apply newton's method for solving dual fuzzy nonlinear system. Newton's method is known to converge rapidly when the initial guess is chosen near the solution point [4]. However, the disadvantage of Newton's method is the need to compute and invert the Jacobian at every iteration. To overcome some of the shortcoming of Newton's method, various methods are employed,for example, Waziri and Moyi [4] used chord method to solve dual fuzzy nonlinear equations. This method computes the Jacobian only once throughout the iteration process. Sulaiman et al [15] used Shamanskii method for solving fuzzy nonlinear equations. This method starts by computing Newton's step in the first iteration, followed by several chord iterates. The reason is to reduce the computational cost of Jacobian evaluation at all iterations. Amira et al [14] solved fuzzy nonlinear equations using Broyden's method. The method replaces the matrix Jacobian with a matrix A_{k-1} whose inverse is directly determined at each iteration. However these methods are variants of Newton's method and share some of the drawback of Newton's method. Stirling's method [8, 10, and 16] is designed to approximate a locally unique fixed point of the nonlinear equation. The major drawback of this method is that it cannot be used to solve fuzzy nonlinear equations. In this paper a new approach via modified Stirling's method is proposed to solve dual fuzzy nonlinear equations. The proposed method extends the method to solving nonlinear equations.

This paper is structured as follows. In section 2, we present some basic definition and fundamental results of fuzzy numbers. In section 3, we propose an iterative method for solving a dual fuzzy nonlinear equation. In section 4, we present modified Stirling's method for solving dual fuzzy nonlinear equation. In section 5, we illustrate our method by some numerical examples. Conclusions are given in the last section.

Preliminaries

Definition 1: [3] A fuzzy number is a set like $u: R \to I = [0,1]$ which satisfy the following conditions,

(1) u is upper semicontinuous,
(2) $u(x) = 0$ outside some interval $[c, d]$,
(3) There are real numbers $a, b \; such \; that \; c \leq a \leq b \leq d$ and

(3.1) $u(x)$ is monotonic increasing on $[c, a]$
(3.2) $u(x)$ is monotonic decreasing on $[b, d]$
(3.3) $u(x) = 1, a \leq x \leq b$.

The set of all these fuzzy numbers is denoted by E. An equivalent parametric is also given in as follows [9]

Definition 2: A fuzzy number u in parametric form is a pair $(\underline{u}, \overline{u})$ of function $\underline{u}(r), \overline{u}(r), 0 \leq r \leq 1$, which satisfies the following requirements:

(1) $\underline{u}(r)$ is bounded monotonic increasing left continuous function,
(2) $\overline{u}(r)$ is bounded monotonic decreasing left continuous function,
(3) $\underline{u}(r) < \overline{u}(r), 0 \leq r \leq 1$.

A popular fuzzy number is the trapezoidal fuzzy number $u = (x_0, y_0, \sigma, \beta)$ with interval defuzzifier $[x_0, y_0]$ and left fuzziness σ and right fuzziness β where the membership function is

$$u(x) = f(x) = \begin{cases} \frac{1}{\sigma}(x - x_0 + \sigma) & x_0 - \sigma \le x \le x_0, \\ 1 & x \in [x_0, y_0], \\ \frac{1}{\beta}(y_0 - x - \beta) & y_0 \le x \le y_0 + \beta, \\ 0 & otherwise. \end{cases}$$

In parametric form we have
$\underline{u}(r) = x_0 - \sigma + \sigma r, \quad \overline{u}(r) = y_0 + \beta - \beta r.$

Let $TF(R)$ be the set of all trapezoidal fuzzy numbers. The addition and scalar multiplication of fuzzy number are defined by the extension principle and can be equivalently represented as follows.
For arbitrary $u = (\underline{u}, \overline{u}), \quad v = (\underline{v}, \overline{v})$ and $k > 0$ we define addition and multiplication by scalar k as
$(\underline{u + v})(r) = \underline{u} + \underline{v}, \qquad (\overline{u + v})(r) = \overline{u} + \overline{v},$
$(\underline{ku})(r) = k\underline{u}(r), \qquad (\overline{ku})(r) = k\overline{u}(r),$

Modified Stirling's Method (MSM).

Stirling's method [8, 10] is designed to approximate a locally unique fixed point x^* of a nonlinear equation
$F(x) = x$ (2)

We extend the method to solve dual fuzzy nonlinear equations of the form
$f(x) = 0$ (3)

We propose a modification of Stirling's method for solving dual fuzzy nonlinear equation. The anticipation is to extend the linear root finding method to solve nonlinear equations. The proposed method is given as follows: The modified Stirling's method generates an iterative sequence $\{x_n\}$ via the following:

$$x_{n+1} = x_n - \left[I - F^1(P(x_n))\right]^{-1}(F(x_n)) \qquad n = 1,2 \ldots \qquad (4)$$

Where $P(x_n) = x_n$.

Iterative Approach for Solving Dual Fuzzy Nonlinear Equations
Computational literature shows that some basic operations from real numbers used to solve crisp equations do not hold for non-crisp (fuzzy) equations. In fact, for any non-crisp fuzzy number $x \in E$ [4] it is true that

$$x + (-x) \neq 0$$

Hence, we consider the Dual Fuzzy nonlinear equation

$$H(x) = R(x) + B$$

Where all the parameters are fuzzy numbers. Now our aim is to obtain a solution for the above dual fuzzy nonlinear equation; the parametric form is written as

$$\begin{aligned} \underline{H}(\underline{x},\overline{x},r) &= \underline{R}(\underline{x},\overline{x},r) + \underline{B}(r), \\ \overline{H}(\overline{x},\underline{x},r) &= \overline{R}(\overline{x},\underline{x},r) + \overline{B}(r) \qquad \forall r \in [0,1] \end{aligned} \qquad (5)$$

Now, let $x = (\underline{\alpha},\overline{\alpha})$ be the solution to the above fuzzy nonlinear equation, then

$$\begin{aligned} \underline{H}(\underline{\alpha},\overline{\alpha},r) &= \underline{R}(\underline{\alpha},\overline{\alpha},r) + \underline{B}(r), \\ \overline{H}(\overline{\alpha},\underline{\alpha},r) &= \overline{R}(\overline{\alpha},\underline{\alpha},r) + \overline{B}(r) \qquad \forall r \in [0,1] \end{aligned} \qquad (6)$$

Rewriting (3) we obtain

$$\begin{aligned} \underline{H}(\underline{\alpha},\overline{\alpha},r) - \underline{R}(\underline{\alpha},\overline{\alpha},r) &= \underline{B}(r), \\ \overline{H}(\overline{\alpha},\underline{\alpha},r) - \overline{R}(\overline{\alpha},\underline{\alpha},r) &= \overline{B}(r) \qquad \forall r \in [0,1] \end{aligned} \qquad (7)$$

Let $\underline{Q}(\underline{\alpha},\overline{\alpha},r) = \underline{B}(r)$ and $\overline{Q}(\overline{\alpha},\underline{\alpha},r) = \overline{B}(r)$ in (4), we get

$$\begin{aligned} \underline{H}(\underline{\alpha},\overline{\alpha},r) - \underline{R}(\underline{\alpha},\overline{\alpha},r) &= \underline{Q}(\underline{\alpha},\overline{\alpha},r), \\ \overline{H}(\overline{\alpha},\underline{\alpha},r) - \overline{R}(\overline{\alpha},\underline{\alpha},r) &= \overline{Q}(\overline{\alpha},\underline{\alpha},r) \qquad \forall r \in [0,1] \end{aligned} \qquad (8)$$

Hence, if $x_k = (\underline{x}_k,\overline{x}_k)$ is an approximate solution to the given system, then there exist $h(r)$ and $g(r)$ and $\forall r \in [0,1]$ such that

$$\begin{aligned} \underline{\alpha}(r) &= \underline{x}_k(r) + h(r) \\ \overline{\alpha}(r) &= \overline{x}_k(r) + g(r), \qquad k = 0,1,2,\ldots \end{aligned} \qquad (9)$$

Now if we use the Taylor series of $\underline{F},\overline{F}$ about $(\underline{x}_0,\overline{x}_0)$, then for any $r \in [0,1]$,

$$\begin{aligned} \underline{F}(\underline{\alpha},\overline{\alpha},r) &= \underline{F}(\underline{x}_0,\overline{x}_0,r) + h\,\underline{F}_{\underline{x}}(\underline{x}_0,\overline{x}_0,r) + g\,\underline{F}_{\overline{x}}(\underline{x}_0,\overline{x}_0,r) + 0(h^2+hk+h^2) = \underline{c} \\ \overline{F}(\underline{\alpha},\overline{\alpha},r) &= \overline{F}(\underline{x}_0,\overline{x}_0,r) + h\,\overline{F}_{\underline{x}}(\underline{x}_0,\overline{x}_0,r) + g\overline{F}_{\overline{x}}(\underline{x}_0,\overline{x}_0,r) + 0(h^2+hk+h^2) = \overline{c} \end{aligned}$$

Eliminating the terms with highest order, and if $\underline{x}_0$ *and* $\overline{x}_0$ are near to $\underline{\alpha}$ *and* $\overline{\alpha}$, then $h(r)$ and $g(r)$ are small. We assume that all needed partial derivatives exist and are bounded. Therefore for enough small $h(r)$ and $g(r)$, then for each $r \in [0,1]$

$$\begin{aligned} \underline{F}(\underline{x}_0,\overline{x}_0,r) + h\,\underline{F}_{\underline{x}}(\underline{x}_0,\overline{x}_0,r) + g\,\underline{F}_{\overline{x}}(\underline{x}_0,\overline{x}_0,r) &= \underline{c}(r) \\ \overline{F}(\underline{x}_0,\overline{x}_0,r) + h\,\overline{F}_{\underline{x}}(\underline{x}_0,\overline{x}_0,r) + g\overline{F}_{\overline{x}}(\underline{x}_0,\overline{x}_0,r) &= \overline{c}(r) \end{aligned} \qquad (10)$$

And hence $h(r)$ and $g(r)$ can be obtained by solving the following equations.
In this paper $\forall r \in [0,1]$ we use modified Stirling's method to solve (10). The modified Stirling's method generates a sequence

$$x_{n+1} = x_n - [I - F^1(P(x_n))]^{-1}\big(F(x_n)\big) \qquad n = 1,2 \ldots$$

Where $P(x_n) = x_n$ and I an identity matrix
and

$$J(\underline{x}_0, \overline{x}_0, r) \begin{pmatrix} h(r) \\ g(r) \end{pmatrix} = \begin{pmatrix} \underline{c}(r) - \underline{F}(\underline{x}_0, \overline{x}_0, r) \\ \overline{c}(r) - \overline{F}(\underline{x}_0, \overline{x}_0, r) \end{pmatrix}$$

Where

$$J(\underline{x}_0, \overline{x}_0, r) = \begin{bmatrix} \underline{F}_{\underline{x}}(\underline{x}_0, \overline{x}_0, r) & \underline{F}_{\overline{x}}(\underline{x}_0, \overline{x}_0, r) \\ \overline{F}_{\underline{x}}(\underline{x}_0, \overline{x}_0, r) & \overline{F}_{\overline{x}}(\underline{x}_0, \overline{x}_0, r) \end{bmatrix}$$

We now propose the algorithm for the proposed method

Algorithm: Modified Stirling's Method (MSM)

Step 1: Transform the dual fuzzy nonlinear equations into parametric form

Step 2: Determine the initial guess x_0 by solving the parametric equations for $r = 0$ and $r = 1$.

And for $n = 0,1,2 \ldots$

Step 3: Compute $J_n(x_n)$ *and* $F(x_n)$. where $J_n(x_n) = F^1\big(P(x_n)\big)$

Step 4. Compute $[I - J_0(x_n)]s_n = -F(x_n)$. where I is an identity matrix

Step 5. Update $x_{n+1} = x_n + s_n$. where $s_n = -[I - J_0(x_n)]^{-1} F(x_n)$

Step 6: Repeat Step 3 to Step 5 and continue with the next n until $\|F(x_n)\| \leq 10^{-4}$ are satisfied.

Numerical applications:
Here we consider two examples to illustrate the performance of the iterative method for solving dual fuzzy nonlinear equation.
Example 1 [7] Consider a dual fuzzy nonlinear equation

$$(3,4,5)x^2 + (1,2,3)x - (1,2,3) = 0$$

Without loss of generality, let's assume x is positive. The parametric form of the above equation is as follows:

$$(3+r)\underline{x}^2(r)+(1+r)\underline{x}(r)-(1+r)=0$$
$$(5-r)\overline{x}^2(r)+(3-r)\overline{x}\,(r)-(3-r)=0$$

We solve the parametric form for $r=0$ and $r=1$ to obtain the initial guess.
i.e. for $r=1$ we have

$$4\underline{x}^2(1)+2\underline{x}(1)=2$$
$$4\overline{x}^2(1)+2\overline{x}\,(1)=2$$

and for $r=0$, we have

$$3\underline{x}^2(0)+\underline{x}(0)=1$$
$$5\overline{x}^2(0)+3\overline{x}\,(0)=3$$

We have, $\underline{x}(0)=0.4343, \overline{x}(0)=0.5307$ *and* $\underline{x}(1)=\overline{x}(1)=0.5000$. Considering, initial guess as $x_0=(0.4,0.5)$, after three iterations, we obtain the solution with the maximum error less than 10^{-3}. The performance profile is given in fig 1.

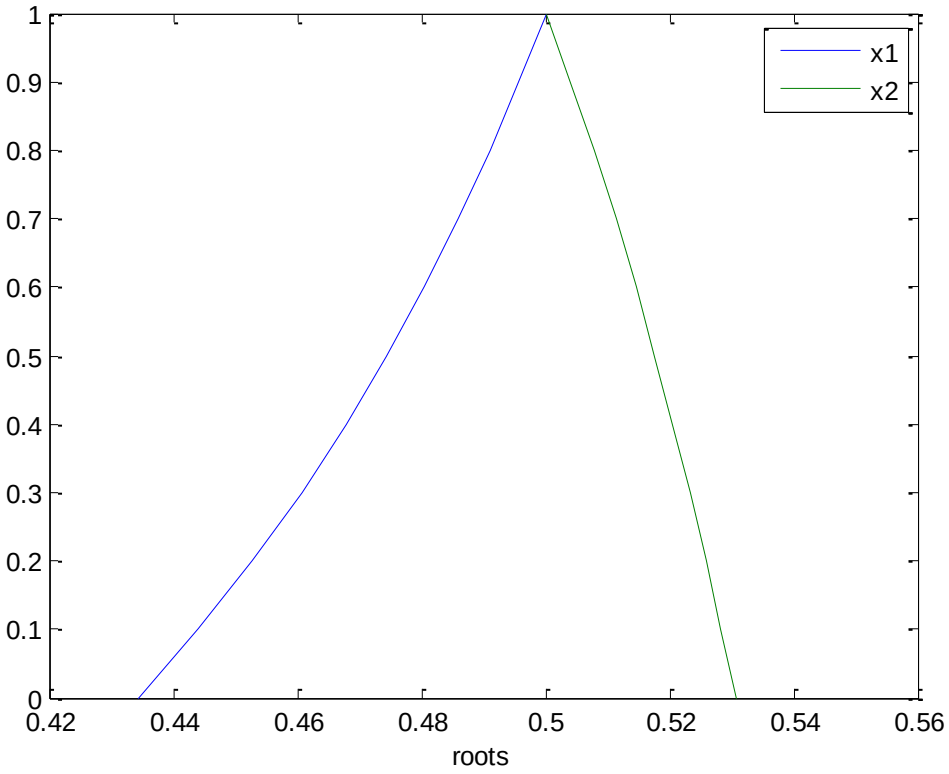

Figure 1. Solution of Stirling's method for example 1.

Example 2 [7] Consider a dual fuzzy nonlinear equation

$$(4,6,8)x^2+(2,3,4)x-(3,6,9)=0$$

Without loss of generality, we assume that x is positive, and then the parametric form of the above equation is as follows:

$$(4+2r)\underline{x}^2(r)+(2+r)\underline{x}(r)-(3+3r)=0$$
$$(8-2r)\overline{x}^2(r)+(4-r)\overline{x}\,(r)-(9-3r)=0$$

We solve the parametric form for $r=0$ and $r=1$ to obtain the initial guess as follows: for $r=0$, we have

$$(4)\underline{x}^2(0)+(2)\underline{x}(0)-3=0$$
$$(8)\overline{x}^2(0)+(4)\overline{x}\,(0)-9=0$$

and for $r=1$, we have

$$(6)\underline{x}^2(1)+(3)\underline{x}(1)-6=0$$
$$(6)\overline{x}^2(1)+(3)\overline{x}\,(1)-6=$$

Which implies $\underline{x}(0)=0.6514$, $\overline{x}\,(0)=0.8397$ and $\underline{x}(1)=\overline{x}\,(1)=0.7808$ and that the initial guess $x_0=(0.6514,0.7808,0.8397)$. The solution of the above system was obtained after four iterations with maximum error less than 10^{-3} . Refer to fig 2 for the performance profile.

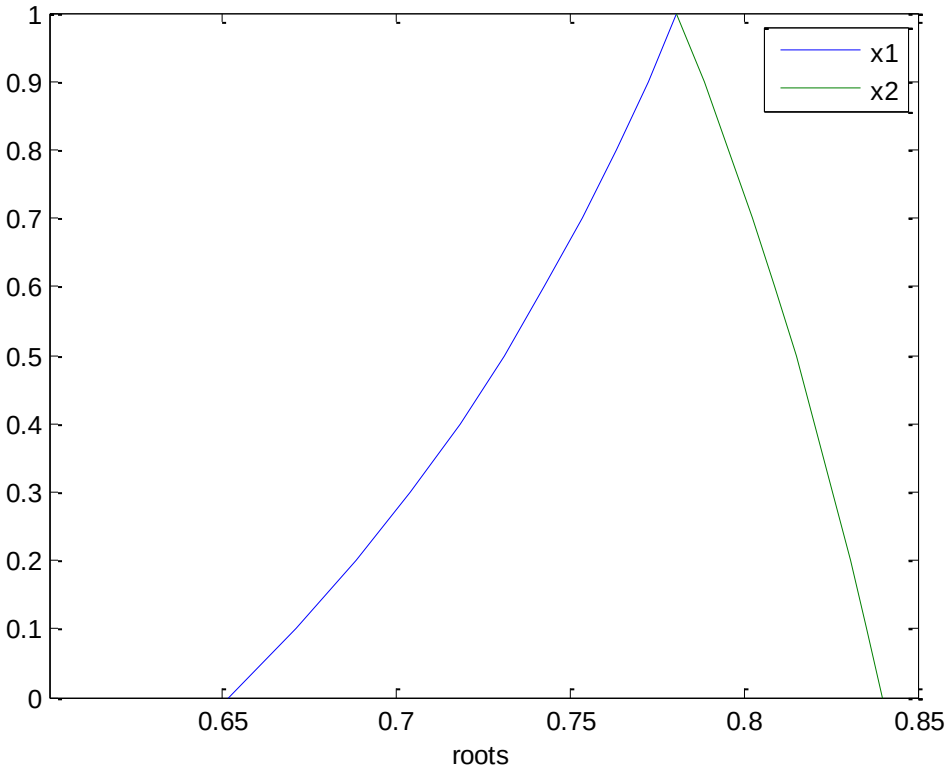

Figure 2. Solution of Stirling's method for example 2.

Conclusion

In this paper, we proposed a modified Stirling's method for solving dual fuzzy nonlinear equations. The method is an extension of Stirling's method for root finding problems. The fuzzy nonlinear equations are written in parametric form and then solved via modified Stirling's method. Numerical examples for fuzzy nonlinear equations are provided to illustrate the efficiency of the proposed method, which shows that our proposed method is promising.

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THE MALAY COMMUNITY RESPONSE OF TOWARDS MALAY SCHOOL EDUCATION AFTER THE WAR UNTIL 1957

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Abstract: *The secular education introduced by the British colonialists had various reactions among the Malays. Education provided by the British aims to maintain the status quo of the Malays. The Malay school education curriculum introduced by the British only emphasizes basic education such as 3R's which is reading, writing and arithmetic. The Malay community thinks education that introduced by the British were contrary to the Islamic religion and worldly. As a result, the parents of Malay children refused to send their children to the Malay school. Therefore, this study aims to examine the response of the Malay community towards Malay school education after the War until 1957. This study was conducted using a qualitative method that emphasized the analysis of documents obtained from the National Archives of Malaysia such as colonial records and annual report on education (Annual Report on Education 1949 by M.R Holgate). The findings showed that the Malay community were welcomed Malay education after the Second World War. The awareness of the Malay community is due to the encouragement the government by providing the perfect education facilities for Malay education, such as scholarship assistance, food aid and complete school facilities.*

Keywords**:** *Community Response, Malay Education and British Colonial.*

Introduction

British colonialism introduced the Malay school education by using the Malay language completely beginning in 1920. Malay children aged 7 to 14 who live within a radius of two kilometers from the school area are obliged to attend school. They are also required to complete their education in the IV grade. In 1821, the British set up a classroom building reserved for Malay school education under the maintenance of Penang Free School.[2] Malay school education was established only at the lowest level.[3] This proves that the British only carried out social responsibility by providing basic education to the Malay children. The British have no policy with the aim of promoting the education of the Malay children into a complete education system

[2] David J. Radcliffe, 1970, Education and Cultural Change Among the Malays, Tesis Doktor Falsafah, Universiti Winsconsin, hlm. 32.
[3] Ibrahim Saad, 1977, Pendidikan dan Politik di Malaysia, Kuala Lumpur: Dewan Bahasa dan Pustaka, hlm.16.

in enhancing the knowledge of the Malays.[4] This is because British fears it leads to the consciousness of the Malay community to rise against the British colonial power of Malaya.[5] The British colonial administration in the Straits Settlements established schools using the Malay language as the medium of instruction and providing Malay teachers to teach Malay children to read Malay by using *Jawi* and *Rumi* scripts. The education of the Malay school before the Second World War only focuses on 3R's which are reading, arithmetic and writing. Therefore, the curriculum implemented in Malay school education is also limited as it provides only basic knowledge for local children. [6] The British colonialists wanted a secular education policy implemented on the Malay children by turning the children of the Malays as low-level workers to help the British administration.[7]

Literature Review

A study by David James Radcliffe[8] titled Education and Cultural Change among the Malays 1900-1940, has explained that there were four types of education flows that have existed and operated before the outbreak of the Second World War in Malaya. First, the establishment of a Malay school under the British colonial administration. Second, the establishment of an English school founded by Christian missionaries and received financial support from the British colonial administration. Third, the existence of Chinese schools established by the Chinese community. In 1920, Chinese school management was taken over by the British colonial administration. Fourth is the setting up of Tamil schools established for children of rubber estate workers. Overall, David James Radcliffe's writing is more focused on the development of Malay, English, Chinese, and Tamil school education. He also explained about the schools in the Federated Malay States during the British colonial period. In terms of area coverage, Radcliffe is also more focused on education in Selangor. This research also helps a lot in understanding the development of Malay school education either formal or informal Malay education.

Ramlah Adam[9] in her research about *Maktab Melayu Melaka 1900-1922* explain that education among Malay societies prior to the entry of British administration was focusing on agricultural skills, trade and martial arts. Secular education started in Malaya after the British invasion of the 19th century. The British began establishing a Malay school education that focused on basic knowledge. Although Ramlah's study only focuses on the setting up of the Malay College but there is also a description of the Malay school education. Her research also helped in obtaining information on early Malay education, policy and the goal of secular education by the British towards the Malay children.

Abdul Aziz Mat Ton[10] research in *Persekolahan Melayu 1945-1948: Satu Manifestasi Semangat Perjuangan Melayu* more focused on the struggle of the Malays on education. The

[4] Ramlah Adam, 1991, Maktab Melayu Melayu Melaka 1900-1922, Kuala Lumpur:Dewan Bahasa dan Pustaka, hlm.9.
[5] Ibrahim Saad, 1986, Pendidikan dan Politik di Malaysia, Kuala Lumpur: Dewan Bahasa dan Pustaka, hlm. 18.
[6] Awang Had Salleh, 1985, Pendidikan dalam Pemikiran Awang Had Salleh, Selangor: Fajar Bakti, hlm.79.
[7] Ramlah Adam, Maktab Melayu Melayu Melaka 1900-1922, hlm. 9.
[8] David James Radcliffe, 1970, Education And Cultural Change Among The Malays 1900-1940, Tesis Doktor Falsafah, University of Wisconsin, USA.
[9] Ramlah Adam, 1991, Maktab Melayu Melayu Melaka 1900-1922, Kuala Lumpur:Dewan Bahasa dan Pustaka,
[10] Abdul Aziz Mat Ton, 1984, Persekolahan Melayu 1945-1948: Satu Manifestasi Semangat Perjuangan Melayu dalam Sejarah Masyarakat Melayu Moden, Kuala Lumpur: Jabatan Penerbitan Universiti Malaya.

study also explains the reaction of the Malays on education, the increasing of student attendance in schools, and the development of schools in Malaya. Abdul Aziz Mat Ton emphasizes that the struggle of the Malays in politics is divided into two currents namely radical group who want independence and those who still need British protection. This study also describes about the assistance given by the British to the children of the Malays who attend school. Overall, Abdul Aziz Mat Ton's study devoted much to Malay education after the Second World War, including the issues that existed in Malay school education.

Issues in Malay School Education

Many historians have pointed out that British colonial Malay school education curriculum is very disadvantage to the Malay community. In the mid-19th century, the British had introduced Malay school education specifically for the Malay children. The purpose of establishing a Malay school education is to provide minimum education opportunities to the Malay children so that they are not illiterate and can understand the instruction and regulations implemented by the British colonial administration.[11] The secular education system introduced by the British received various of negative reactions among the Malays. Various efforts were made by the British to attract Malays to send their children to school such as using the mediation of *penghulu*[12] and Malay District Officers.[13] However, the efforts of the British became futile when the schools established by them were not accepted in the Malay community. This was because the Malays believed the secular education introduced by the British was against the Islamic teaching as it was purely concentrated on the 'worldly aspect'. Therefore, the Malays prefer to send their children to *sekolah Pondok* for deepen religious knowledge.[14] After the Second World War, the number of Malay children entering school increased as a result of the Malay consciousness of the importance of education. The parents of the Malay children welcomed the education of the Malay school and many of them began sending their children to school.[15] The Malay school education has its many contributions, especially in the academic field in producing successful Malay children in their lives as teachers and community leaders who become important figures contributing to the nation's awareness and independence.

Research Methodology

This study is conducted entirely by using qualitative methods that emphasize on the analysis of documents and manuscripts. This study focuses on the use of primary sources of documents i.e. Colonial office record, education annual report such as Annual Report on Education 1949 by M.R Holgate, and State Secretary File. The study was conducted at the National Archives of Malaysia to obtain educational history resources in the British colonial era. To obtain the secondary sources, this study would be conducted at public universities in Malaysia such as the University of Malaya and National University of Malaysia. The evaluation of data and result

[11] Ibid. hlm. 52.
[12] Penghulu is the headman or chief in Malay society.
[13] Supplement To The Straits Settlements Government Gazette, Annual Report on Education for the year 1887 by A.M. Skinner, KL 1145/88, Kuala Lumpur: Arkib Negara Malaysia, hlm. 886.
[14] Rex Stevenson, 1975, Cultivators and Administrator British Educational Policy towards the Malays 1875-1906, Kuala Lumpur: Oxford University Press, hlm. 119.
[15] Abdul Aziz Mat Ton, 1984, Persekolahan Melayu 1945-1948: Satu Manifestasi Semangat Perjuangan Melayu dalam Sejarah Masyarakat Melayu Moden, Kuala Lumpur: Jabatan Penerbitan Universiti Malaya, hlm. 232.

would be done analytically and by hermeneutic interpretation. The research also conducted research on previous studies as a source of historiography by previous researchers and their findings were used as an analysis, material by researchers in looking at the coherence of this research such as books, journals, and thesis.

Findings

In the 18th century, the British began to introduce secular education in Malaya and cause various reactions among the Malay community. Education is based on 3R's such as reading, writing and arithmetic taught to Malay children to reduce illiteracy rate.[16] 'White's men's burden'[17] concept causing Christian missionaries and some British officers to take the responsibility by introducing Malay school education in the Malay village.[18] British colonialism introduced Malay school education only at the primary level and Malay children were required to study up to grade V to enable them to graduate.[19] Education in Malay schools was free and Malay boys living near schools were required to enroll in school. Although the education provided was free, the parents of the Malay children need to spend money on children's school needs such as exercise books and inks.[20] In 1920, the number of schools established by the British colonial in Malaya is 346 Malay boy schools and 54 Malay girl schools. The total number of pupils in the Malay boy school was 18,699, while the Malay girl school was only 1,620.[21] The number of Malay girl admissions was very measly compared to the Malay boys because of the lack of encouragement and parental support. Parents of Malay children, assuming knowledge gained from the Malay school will cause their children to be exposed with love letter writing. In addition, parents of Malay children also think that reading and writing knowledge taught at school will also make their children clever in trickery. The Malay parents are also very concerned about the safety of their daughters. Therefore, parents feel wary to let their daughters walk alone to school. The mother also worries about losing an assistant at home to carry out house chores, activities if their daughter attend the school.[22]

After the end of the Second World War, the parents of the Malay children took the initiative to send their children to the Malay education school for giving education opportunities. The awareness on education importance began after the Japanese occupation of Malaya. The Malays are aware that education plays an important role in protecting the nation and the country

[16] J.S. Solomon, 1989, Perkembangan Pendidikan Dwibahasa Untuk Perpaduan National Di Malaysia, Kuala Lumpur:IBS Buku Sdn. Bhd., hlm. 15.

[17] '*White's man burden'* concept is one of the ways to destabilize the community that is considered backward. The British are of the opinion that they are responsible for civilization in Malaya. Additionally, this slogan is also one of the ways the West extends the colonies of their subordination, spreading Christianity. For more information, see A.J. Stockwell, 1982, The White Man's Burden and Brown Humanity: Colonialism and Ethnicity in British Malaya, JMBRAS: Southeast Asian Journal of Social Science, Vol. 10, No. 1 (1982), hlm. 44-68

[18] Ramlah Adam, 1991, Maktab Melayu Melaka 1900-1922, Kuala Lumpur: Dewan Bahasa dan Pustaka, hlm. 6.

[19] Khairi bin Ariffin, Dasar Kolonial British Terhadap Pendidikan Melayu di Tanah Melayu 1900-1957, hlm. 53.

[20] Annual Report on Education 1949 by M.R. Holgate (Director of Education, Federation of Malaya), Kuala Lumpur: Arkib Negara Malaysia, hlm. 43.

[21] Annual Report For 1920 By W. George Maxwell (F.M.S), Kuala Lumpur: The Federated States Government Printing Office, hlm. 12.

[22] Annual Reports on Education in the Straits Settlements and the Federated Malay States for the year 1937 by A. Keir, Singapore: Government Printing Office, hlm. 17.

from being oppressed by the British colonialists.[23] In 1950, the number of Malay schools increased to 1704 schools. The parents began sending their children to the Malay education school after the Second World War to get proper education. The demand for education among the Malay children was very high and the British began to establish another 227 Malay school in 1951. The total number of pupils in 1951 was 305,000 and 10,500 teachers were assigned to teach in Malay schools.[24] The table below shows the improvement of number Malay pupils who enrolled in Malay education schools after the Second World War:

Table 1: Number of Pupils Enrollment at the Malay School After World War II

Year	Boy	Girl	Total
1946	96,000	40,400	122,000
1947	122,900	47,800	136,400
1948	130,300	69,000	199,300
1949	151,400	81,200	232,600
1950	167,848	92,734	260,582

Source: Barnes Report, Report Of The Committee On Malay Education Federation Of Malaya, 1951.[25]

Table 1 above shows the number of pupils in Malay schools after the Second World War. In 1946, 96,000 boys and 40,400 girls were enrolled in Malay schools, the total number of pupils enrolling in Malay schools is 122,000. The number of pupils enrolled in Malay schools in 1947 increased to 136,400, which is 122,900 boys and 47,800 girls. The pupil admission was also increased in 1948 were 199,300 pupils comprised of 130,300 boys and 69,000 girls were enrolled. In 1949, there are about 151,400 boys and 81,200 girls registered with the Malay school. Subsequently, in 1950, 260,582 pupils were registered where 167,848 of them were boys and 92,734 were girls. The increment of pupils in Malay schools is due to increase in number of schools in Malaya by British colonial, it will give education opportunities to Malay children.

In 1950, The complete infrastructures in school also encouraged the Malays to send their children to the school. The facilities provided were more or less aided the activity in the classroom.[26] There were two types of facilities provided which were inside and outside of the classroom. Every Malay school had perfect classroom equipments such as desks, chairs, cupboard and blackboard. For instance, Sekolah Kampung Gelam in Malacca they conducted the teaching and learning session using the main equipment like a blackboard. The equipments assisted the teachers to explain on what they were teaching to the students such as writing *jawi* or teaching in *rumi* alphabets. Wooden tables and chairs provided to pupils are the main necessities for ensuring comfort and facilitate the pupils to do the exercises given by the teachers. Teacher's desk and chair were also provided in the classroom. These equipments in the classroom such as desks, blackboard and chairs were supplied equally to all Malay schools in Malacca.[27] Improvement of the equipments in the classroom was also performed like increasing the first aid

[23] Barnes Report, Report Of The Committee On Malay Education Federation Of Malaya, 1951, Government Press By G. A.Smith, Kuala Lumpur: Arkib Negara Malaysia, hlm. 9.
[24] Annual Report on Education for 1952 by L. D. Whitfield (Director of Education, Federation of Malaya), Kuala Lumpur:Arkib Negara Malaysia, hlm. 8.
[25] Barnes Report, Report Of The Committee On Malay Education Federation Of Malaya, Government Press By G. A.Smith, hlm.3.
[26] Repaire of Malay School Furniture, 1950, E.O.M. No. 255/1950, Kuala Lumpur: Arkib Negara Malaysia.
[27] Ibid.

kit, screen as well as water filters in school. These facilities were very important to facilitate the class journey. For example, the first aid kit was meant for the students' use during emergency in case if there was an unexpected accident occured in the class.[28] For outdoor equipment, every Malay school provides a small library to pupils at school. They could borrow and return the books within the appointed period. The Malay schools in the Federated Malay States also provided free Malay newspapers, the '*Lembaga Melayu*'. Besides, about 920 books entitled George Washington Carver were distributed to the library of all Malay schools in Kelantan.[29]

After the war, every Malay school also equipped with cultivation sites for Gardening subject. Therefore, the facilities provided will drew the parents of the Malay children interest to register their children to the school. This was because the traditional Malay population during the British Colonial era concentrated more on the farming sector, which was inherited from their ancestors for generations.[30] For the gardening subject, the pupils would not be required to bring along the gardening tools from home because the school would provide them instead. Gardening tools that were provided to pupils are hoe, trowel, *rembas*, rake, watering pot, digger, pail, flower cutting scissors, machete and twigs.[31] The wells, facilities were also provided to ease the students to water their crops in their school garden. Construction of wells saves pupils' time because before welled are built, the boys had to go to the nearby river to collect some water. Other than for watering the crops, the well also functioned as the source of clean drinking water for students.[32] There was also a garden competition held between the Malay schools and the competition has received good response among Malay students. Agriculture Department of Malacca had an organized garden competition at the school level in 1949. It involved Malay schools in Jasin District, where 20 schools participated and the scoring throughout the competition involved vary of vegetables, tidiness of the garden and the freshness of the vegetables.[33]

The British Colonial also provided the food aid in the school, which was given to the underprivileged Malay students. The foods served comprised of *pisang goreng* or *kuih-muih*. Usually, there was a local Malay woman assigned to give the foods to the students of the Malay schools in the morning. Some of the students were given the basic food aid such as milk, cocoa and biscuits by the Department of Medical and Health. In some areas like Negeri Sembilan, there were balanced food aid supplied to the pupils. About 5,706 from 40,677 pupils had received daily food aid in Negeri Sembilan. This food aid included rice, peanut, fish, vegetables and oil. Meanwhile, 16,811 pupils received cocoa, 4,447 pupils received milk scheme and 1,528 pupils were given biscuit supply. The provided food aid was aimed to ensure the fitness of the students, improved their understanding in the class and increased their attendance to the school.[34] Other than food aid, the British Colonial government also provided educational aid in the form of

[28] Furniture for Malay Schools 1952, EDUC.PHG. 180/1952, Kuala Lumpur: Arkib Negara Malaysia.
[29] Malay School Libraries, EDN (MISC) 37/1953, Kuala Lumpur:Arkib Negara Malaysia.
[30] Khairi Ariffin *et al*.,2018, Gardening Subject in Malay Vernacular Schools on the British Colonial Period in Malaya, Sci. Int. (Lahore), 30(30), 441-444, May-June, ISSN 1013-316; CODEN: SINTE 8, hlm. 442.
[31] Gardening Tools in Malay Schools 1953, EDUC. PHG. 357/1953, Kuala Lumpur: Arkib Negara Malaysia.
[32] Wells for Malay Schools: Provision in 1351 Estimates for Construction of:- Perbelanjaan di dalam Estimates Tahun 1351 bagi Perbuatkan Telaga bagi Sekolah-sekolah Melayu. [Versi Melayu-Jawi], 1931, S.C. 2024/50, Kuala Lumpur: Arkib Negara Malaysia.
[33] Vernacular School Gardens 1949, E.O.M. NO 269/1949, Kuala Lumpur: Arkib Negara Malaysia.
[34] Annual Report on Education 1949 by M.R. Holgate (Director of Education, Federation of Malaya), hlm. 107.

scholarship to the Malay students. After pupils at the Malay school managed successfully ended their study till standard V, the British gave them the opportunity to further their studies in English schools. The requisite to obtain the scholarship was passing the entrance examination to the English school, excellent academic achievement in Malay schools, underprivileged students and students that lived far from the English school that they had to rent a house.[35] The scholarship given to the Malay children caused many of them aspired to finish their study at standard V excellently to change their family's life in the village. For the pupils who that managed to secure a place in the English school, they would be placed in Special Malay Class during their first year. The following was a list of pupils from Malay school who successfully entered the English school:

Table 2: Name, List of Malay Pupil Girls accepted to enter the Special Malay Class I in French Convent School in 1951

Name	School
Esah binti A. Aziz	Ayer Molek
Mariam binti Hj. Zainuddin	Durian Daun
Sa'adiah binti A. Kudus	Bukit Baru
Kalimah binti Ab. Kiam	Kelebang Besar
Samiah binti Hj. Md. Shah	Melaka Pindah
Che 'Dah binti Bachik	Durian Daun
Zainab binti Harun	Tangga Batu

Source: Special Malay Classes For 1951[36]

Table 2 enlisted the Malay pupil girls who successfully entered the Special Malay Class with French Convent School in 1951. There were 7 girls accepted, including Mariam binti Hj. Zainuddin and Che 'Dah binti Bachik from Durian Daun Malay School, Esah binti A. Aziz from Ayer Molek Malay School, Sa'adiah binti A. Kudus from Bukit Baru Malay School, Kalimah binti Ab. Kiam from Kelebang Besar Malay School, Samiah binti Hj. Md. Shah from Melaka transferred to Malay School and Zainab binti Harun from Tangga Batu Malay School. Education in English schools is free if Malay children get help through Malay schools[37]. For the Malay parents who wished to send their children directly to the English school, they would be required to pay the fee about $30 per year.[38]

Conclusion

In conclusion, In conclusion, the British Colonial wished the introduced education system and curriculum would make the Malay children become 'a bit smarter' from their parents. The graduates from the Malay school system gave them difficulty to fill the position in fulfilling the job opportunity in public service sector of the British Colonial government or private company

[35] Amended Rules for the award of scholarship to Malay Boys at English Schools in Perak, Selangor & Pahang, N.S.SEC.GENERAL 415/1931, Kuala Lumpur: Arkib Negara Malaysia.
[36] Admission Of Malay School Pupils Into English Schools. Special Malay Classes For 1951, E. O. M. No. 258/1950, Kuala Lumpur: Arkib Negara Malaysia.
[37] The Malay school administration will propose the names of the Malay children who have completed their studies and graduated excellently to English school to be admitted to Special Malay Class.
[38] Annual Report on Education For 1953, Federation of Malaya, Kuala Lumpur: Government Press by B. T. Fudge (Acting Government Printer), hlm. 10.

owned by the British. The academic qualification for the Malay in the British Colonial era was only capable to produce workers like farmers and fishermen. Therefore, the awareness of education among the Malays began to emerge after the Second World War. The Malays began to send their children to study in the Malay school to secure a place for furthering their study to the next level such as to the English school. The education given to the Malay children enabled them to be more knowledgeable compared to their parents. The introduced subjects also helped the Malay children to get a better job to change their life in the village. The curriculum taught in the school also helped the Malay children to develop more of their skills in theoretically and practically.

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THE PADDY CULTIVATION IN DISTRICT OF LOWER PERAK: A TRADITIONAL HERITAGE UNTIL 1957

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Abstract: *District of Lower Perak has been very synonym with their agricultural activity since before British colonial era. During British administration in Perak, Lower Perak District had been developed as a rich region in traditional and commercial agriculture. The entry of British colonial also had affected the method and technology of paddy planting. The research was carried out to identify the development toward the paddy planting in the district of Lower Perak during the colonial era in 1900 until 1957. The research was carried out by using qualitative methods by analyzing official colonial documents, annual report and writing on paddy cultivation in Perak. The finding showed that the District of Lower Perak had paddy cultivation area that had been developed during the British colonial era. The introduction to irrigation system had developed the area of paddy planting in Lower Perak. New settlement also been developed due to the increase of paddy planting area and construction of irrigation system. The British colonial administration had encouraged the development of paddy field in Lower Perak and developed the district as agriculture-based development.*

Keywords: *Paddy, Traditional, Agriculture, Development, Irrigation*

Introduction

The state of Perak lies in the West of the Peninsula of Malaysia with a 100°30'T longitude with 101°45 'and is within the 3°40'U latitude and 5°50'U. The Perak State is located bordered to the state of Selangor where the Bernam River makes the border between two states.[39] Lower Perak is

[39] Zabidin Haji Ismail,2013, *Menara Condong Teluk Intan*, Kuala Lumpur: Institut Terjemahan dan Buku Malaysia, pg 1

one of the districts in Perak that consist of ten sub-districts and villages.[40] Before the British colonialism in Perak, the locals practiced the traditional way in many aspects which had been inherited from their ancestors in several years ago. Since the British colonization in Perak in 1874, the economic activity was still being continued but with a different technique. The British intervention had caused the changes in economic activity, including the agriculture sector in Lower Perak.

Agriculture sector had been one of the biggest contributions in development of Perak after the British colonization. British administration had separated the agriculture sector into two types of cultivation which were the main cultivation and secondary cultivation.[41] The district of Lower Perak was well known agricultural area since before British colonization. Paddy is one of the main crops other than coconut, palm, rubber, sugar cane and tobacco. The economy of the Malay people in Lower Perak was depending on paddy cultivation, which had become the staple food of the people in that district.[42]

The paddy cultivation was also the main occupation and became the source of income of the Malay people in Lower Perak before 1890s.[43] Before the British administration, the Malay people carried out the paddy cultivation activity just to earn a living. Hence, there was no systematic management that held the responsibility to monitor and control the paddy yield annually. After the 1890s, most of the Malays in Perak became the laborers by transporting the merchandise through the river to the nearby mining site.[44] After British colonization in 1874, there were changes in agriculture development implemented by the British colonial. This was due to the emergence of the new administration of British colonial causing the socioeconomic transformation among the Malays. They did not only practice the subsistence economy.[45]

Literature Review

The potential of the Perak state, especially in the Lower Perak region as a developing region as a paddy field had been identified since before the era of the British colonial administration. Lim Teck Ghee[46] in his thesis entitled Perak-Aspect of the British Land And Agriculture Policy was about the development of land and agriculture in the state of Perak. Lim Tech Ghee also emphasized the study of agricultural development in the area involved in paddy cultivation in Perak. The development of the paddy cultivation was closely related to land policy to meet economic needs. This study focused only on British policy on the use of land for agricultural development purposes, especially paddy cultivation and not focused in Lower Perak. However, the study had shown that after the British colonial administration, there was a British agricultural development that had contributed to the increment in rice harvesting every year.

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[40]City and villages of Lower Perak consist of Teluk Anson, Bagan Datoh, Batak Rabit, Chikus, Degong, Kota Stia, Selekoh, Sungai Sumun and Hutan Melintang. Perak Secretariat 3277/1948, Name of Town and Village in English.

[41] Annual Report On Social And Economic Progress of People of Perak 1947. Page2

[42] Jagjit Singh Sidhu, 1980, *Administration In Federated Malay States 1896-1920*. Petaling Jaya: Oxford University Press. Page 2

[43] Khoo Kay Kim, 1995, Teluk Anson:1882-1941: Port, Agriculture and Erosion *Journal of Malaysian Branch of The Royal Asiatic Society*. Vol 68(2). Page 43

[44] Ibid.

[45] R. Sutharalingham, 1990, Karl Marx, India dan Teori Kolonialisme di *dalam Kolonialisme di Malaysia dan Negara-Negara Lain*. Petaling Jaya: Penerbit Fajar Bakti Sdn Bhd. Page 23.

[46] Lim Teck Ghee, 1968, *Perak-Aspect of British Land and Agriculture Policy*, Tesis Sarjana, Universiti Malaya.

J.C Jackson[47] in his writing described the relationship between history, culture, practice and the development of paddy crops among peasant communities in the western state of Malaya. The research also emphasized the history of cultivation techniques originating from Thailand. This study described the history of rice cultivation techniques prior to the entry of the British colonial. Although not focusing on the development of paddy crops in Hilir Perak, the writing was helpful in obtaining ideas on the development of paddy cultivation in Malaya.

Khoo Kay Kim[48] in Telok Anson: 1882-1941: Ports, Agriculture and Erosion focusing on agriculture and economic ports at Telok Anson located in Lower Perak. Agriculture in the district of Lower Perak began in the 20th century and the authors stated that the types of plants that were planted in lower Perak. Telok Anson was also one of the ports on the West Coast which developed by their agricultural sector. This writing elaborated that these two sectors already existed before the British administration and its role as a catalyst of development expanded after British colonization.

Research Methodology

This study was conducted entirely by using qualitative method which emphasized the official documents analysis and manuscript. The official documents consist of a British official colonial file including Annual Report on Social and Economic Progress of People of Perak, Federated Malay States Agriculture Report and Perak Secretariat obtained from the National Archives of Malaysia had been used. The use of secondary resources such as books and academic writings on paddy cultivation before and during British colonization in Perak were used to strengthen the writing and research finding.

Findings

The Paddy was widely cultivated in rural settlement in the district of Lower Perak.[49] However, the paddy was not considered as profitable yield among them. Before British colonialism, the Malay peasants faced certain constraints to carry out paddy cultivation activity in Lower Perak. The Malay peasants also used to face the land rental problem and limited sources of income. The technique of traditional paddy cultivation more depended on physical and environmental condition of the plant area.[50]

Since the 15th century, the Malaya communities had high expertise in paddy planting activity. But they still could not be separated with superstitious beliefs, especially when related to the taboo during paddy planting.[51] Paddy cultivation had long been carried out in the Malay Peninsula, especially in Lower Perak. The paddy cultivation before the British colonial era was carried out by field manner since the irrigation system to supply the water to paddy field did not

[47] James C. Jackson, 1972, Rice Cultivation in West Malaysia: Relation Between Culture History, Customary Practices and Recent Development, Journal of Malayan Branch of The Royal Asiatic Society. Vol 45(2)
[48] Khoo Kay Kim, 1995, *Teluk Anson: 1882-1941: Port, Agriculture and Erosion,* Journal of Malaysian Branch of The Royal Asiatic Society, vol 68(2), hlm 33-52
[49] Barbara Watson Andaya, *A History of Malaysia*. London: Macmillan Publishers Limited Page 252
[50] Ooi Jin Bee, 1963, *Land, People And Economy In Malaya*. London: Longmans, Green And CO Ltd. Page 224
[51] Ooi Jin Bee, 1963, *Land, People And Economy In Malaya*. London: Longmans, Green And CO Ltd. Page 224.

exist yet.[52] The water supply to irrigate the paddy field was very important in order to ensure the growth of paddy. But, the traditional Malay peasant relied on uncertain rainfall.[53]

The Malay traditional peasant also having problems with limited equipment and technology but this situation did not hinder them to cultivate the paddy which were sufficient for their living. The method of traditional paddy cultivation among the Malay peasants in Lower Perak was brought to the Malay states from Thailand throughout the north state during the 15th century.[54] The basic method of paddy cultivation consists of plowing the soil and constructing the water flow in the paddy field area. The use of buffaloes during the process of planting the paddy was very synonym among the Malay peasants.[55] The buffaloes had a long life span and strength enough to pull the load during paddy cultivation activity. Besides being used during paddy planting, the buffaloes also were well-kept pet among the Malay peasants to ensure the health of that animal and their capability to do the work in paddy field.

Most of the peasants in Lower Perak that carried out the paddy cultivation activity was the Malay people.[56] This situation occurred during the traditional era and continuing until the British administration in Perak. But, the arrival of British colonial had transformed the paddy cultivation activity. The irrigation management and technique to irrigate paddy cultivation area were introduced by the British colonial.[57] Being a peasant was not popular among the Chinese although most of them were farmers before the migration to the Malay states.[58] The district of Lower Perak was synonym as an agriculture area developed during the British colonial period. The paddy field area in Lower Perak during the early British colonial administration did not have much area compared to other district in Perak as in Krian. Krian district had been the main paddy field cultivation in Perak.[59] However, the administration of the British colonial still paid much attention on the potential of the Lower Perak district as the paddy field area by constructing the irrigation system to ensure the growth of paddy yield. The production of paddy yield and new area of paddy field was increasing. These were due to British colonial policy and increase in rice market price.[60]

By the end of 19th century, the new policy was implemented to make Malays as peasants which were profitable to British colonial and the society.[61] Hence, the deforestation and clearance works were carried out. This work was carried out for the construction of irrigation system to irrigate the paddy field.[62] The government was encouraging the peasants to practice the

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[52] Bulletin No 12, Padi Cultivation in Krian, Department of Agriculture Federated Malay State 1911. Page 3
[53] Federated Malay State Agriculture Department, Bulletin no 1-17, 1909-1916. Page 8
[54] Ooi Jin Bee, 1963, *Land, People And Economy In Malaya*. London: Longmans, Green And CO Ltd. Page 224
[55] J.F. McNair,1972, *Perak and The Malays*. Kuala Lumpur: Oxford University Press. Page 112
[56] Ibid.
[57] D.E Short & James C. Jackson, 1971, The Origin Of An Irrigation Policy In Malaya: A Review Of Development Prior To The Establishment Of The Drainage And Irrigation Department. Journal Of The Malaysia Branch of The Royal Asiatic Society. Vol 44. No 1(219). Page 79
[58] Ibid. Page 226
[59] Zaharah Mahmud, 1970, The Period And The Nature Of Traditional Settlement In The Malay Peninsula, *Journal Of The Malaysian Branch Of The Royal Asiatic Society*. Vol 43 No 2 (218). Page 104.
[60] Lim Teck Ghee, 1977, *Peasants And Their Agriculture Economy in Kolonial Malaya 1874-1941*. Kuala Lumpur: Oxford University Press. Page 123
[61] Badriyah Salleh, 1988, Proses Mempetanikan Orang Melayu di daerah Batang Padang Akhir Kurun ke-19 dalam *Perak Dahulu dan Sekarang*. Page 77.
[62] Emily Sadka, 1968, *The Protected Malay State*. Kuala Lumpur: Universiti Malaya Press. Page 340

cultivation of wet paddy instead of dry paddy to avoid the risk of soil erosion.[63] In fact, since the early 19th century, the cultivation of wet paddy field were increasingly acceptable, but dry paddy cultivation were still ongoing. Therefore, an organized system of irrigation was very essential to ensure the increasing of paddy yields for the basic necessities of food and commercial purpose.

In 1930s, the new concept was introduced so that the people in Malay states did not overly rely only on the mining company and rubber planting.[64] High dependency on these two sectors was not capable in encouraging economic growth during the British colonial era. Hence, the paddy cultivation sector had been concentrated, which previously considered as non-profitable crop. The Rice Cultivation Committee of 1931 had proposed the establishment of Drainage and Irrigation Department (DID) to ensure the water flow at the paddy field were well organized. In 1932, the Drainage and Irrigation Department was officially established.[65]

By the year 1939, district of Lower Perak had a total land area of 23,000 acres with the potential for the paddy cultivation area.[66] Most of the paddy cultivation area was located between Teluk Anson and Sungai Kroh. These paddy fields obtained the sources of irrigation from Batang Padang river. The flow of the river were able to irrigate the paddy field near Teluk Anson by using the water pump at one cubic feet per second at each 50 acres.[67]

In 1932, Sungai Manik Irrigation Scheme was implemented and it was the earliest irrigation system in Lower Perak. The earliest irrigation drains at Sungai Manik were built in 1932 and the drains were stemming from Batang Padang river.[68] Sungai Manik was being identified as potential area and suitable for paddy cultivation activities.[69] The existence of Sungai Manik Irrigation Scheme gave influence on the amount of paddy yield produced annually.

The introduction of Sungai Manik Irrigation Scheme also affected the development of new settlements near the paddy cultivation area. The Lower Perak settlement scheme was the largest settlement that provided by the British colonial.[70] One of the settlement scheme was the construction of shared houses (*rumah kongsi*). The construction of the settlement is for the laboures that involved in the construction of the irrigation drain to irrigate paddy field in Sungai Manik.[71]

During the 1940s, the shared houses built in Sungai Manik had accommodated a total of 50 labourers. This early colonization proved that the Malay people during British colonial obtained the land ownership, which was the basic necessity with some conditions.[72] Besides, the laborers working in the construction of irrigation system had been categorized as the earliest residents in Sungai Manik area since the site was previously a jungle.[73]

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[63] Ooi Jin Bee, 1963, *Land, People And Economy In Malaya*. London: Longmans, Green And CO Ltd. Page 224.
[64] Ibid. Page 226
[65] Ibid. Page 227
[66] Ibid.
[67] Ibid.
[68] Federated Malay State Reports On The Progress Of Scheme For The Improvement And Extention Of Rice Cultivation 1935. Page 5
[69] Malayan Union 48/46, Access Road To Sungai Manik
[70] Ooi Jin Bee, 1963, *Land, People And Economy In Malaya*. London: Longmans, Green And CO Ltd. Page 230
[71] Malayan Union 3444/1947, Development of Colonisation Area For Paddy Cultivation
[72] Ooi Jin Bee, 1963, *Land, People And Economy In Malaya*. London: Longmans, Green And CO Ltd. Page 230
[73] *Annual Report on Social and Economic Progress of the People of Perak* 1939, Page 12

Beside the irrigation scheme, the paddy crop area also had been expanded. The process of expanding the paddy cultivation area involved four stages.[74] The four stages were summarized in table 4.1 below.

Table 4.1: The scheme of paddy cultivation in Lower Perak

Stage	Work done
Stage I (1938)	• The total area of paddy field has reached 5977 acres with estimated plant yield of 268 bushels per acre
Stage II (1938)	• More rice was planted • Increase of paddy yields by 100 percent. • Peasants have been involved in cultivation such as corn and vegetables.
Stage III (1939-1940)	• Upgrading paddy area up to 7,104 acres. • 967 acres of dry paddy planted • Jungle harvesting works
Stage IV (1940)	• 293 acres of wet paddy planted. • New settlement or shared house built • The early settlers and residents was involved with the construction of irrigation systems.

Sources: *Annual Report On Social And Economic Progress of the People of Perak 1939*. Page 12-13

Based on table 4.1, the area of paddy cultivation in Lower Perak had increased since stage I in 1938 until stage III in 1940. The expansion of the paddy field area consequently caused the 100 percent increment in the yield production. The increasing of paddy cultivation area had caused cultivation of the dry paddy decreased. The dry paddy cultivation had decreased from 967 acres to 293 acres. This was due to encouragement from the British colonial to plant the wet paddy instead of dry paddy. Deforestation and clearing work in stage IV were done to build the new settlement which was carried out by the earlier settlers that involved in the construction of of irrigation system in Lower Perak.

Despite of the implementation of modern agricultural technique, the traditional equipment were still provided to the peasants. The British colonial government had introduced subsidies for peasant to get the equipment such as seen, axe, machete, sickle and hoe.[75] The paddy seeds had been supplied for the first two years after paddy cultivation scheme was introduced.

However, there was still difficulty among the peasants to open up a new crop area. Malays peasants in Lower Perak also had faced constraints and financial problems in obtaining land for new paddy fields. The subsidy supplied by the colonial government was still insufficient and caused the peasants owed to creditors with high interest.[76] However, the difficulties did not stop the agricultural activities in Lower Perak especially paddy cultivation sectors with the subsidies provided by the British colonial administration.

[74] Ibid.
[75] Ooi Jin Bee, 1963, *Land, People And Economy In Malaya*. London: Longmans, Green And CO Ltd. Page 230
[76] Ibid. Page 23

Conclusion

The amount of rice production before the British colonial era was at unsatisfied level. Even the harvested paddy was largely utilized for self-sufficiency and family used. However, the schemes introduced during the British administration, had encouraged the development of rice cultivation in Lower Perak at the same time led to the opening of new settlements for labourers who were involved in carrying out irrigation works for the benefit of rice crops.

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EVALUATION OF STABILITY AND MATURITY OF COMPOST QUALITY DURING COMPOSTING OF RICE STRAW ASH WITH FOOD WASTE

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Abstract: *The physicochemical and biological changes was examined during composting of rice straw ash with food waste in order to assess the effectiveness as stability and maturity of compost at initial C:N ratio of 25 with three different aeration rates of 0.4, 0.6, 0.8 L/min.kg. The rice straw was burned at 300°C temperature to produced rice straw ash before being used to compost with a food waste. A laboratory-scale of bin composter reactor in a cone-shape was used during the composting process. The composting mixture with aeration rates of 0.4 and 0.6L/min.kg maintained the temperature exceeding 55°C for three and more than three days to meet the requirement of pathogen destruction compared to the composting mixture with aeration rate 0.8L/min.kg. The final C:N ratio for composting mixture with aeration rates 0.4, 0.6 and 0.8L/min.kg was 13, 12 and 10. The final germination index in composting mixture with aeration rate 0.6 and 0.8L/min.kg was exceed 80%,; however, the germination index in composting mixture with aeration rate 0.4L/min.kg was never over 80%. The pH values and moisture content obtained for all composting mixture was in a range of 7-8 and 40-70%.*

***Keywords*:** *Stability, Maturity, Composting, Food Waste, Rice Straw Ash, Compost Quality*

Introduction

Rice straw is considered one of the most important agricultural residues and represented as one of the major by-products from rice production process in most of the rice producing countries. It was produced after the cereal crops are harvested (Siwar, 2005). The amount of rice straw derived was estimated by the information of the rice production (Rosmiza et al., 2014). The production of paddy was increases from more than 2.5 million tonnes in year 2010 into more than 2.7 million tonnes of paddy in year 2014. This means that, the same amount of rice straw residue also was produced in that year (FOASTAT). It is a non-edible product, which often left in the paddy field after harvesting process (Lal, 2005).

The farmers usually burning the rice straw on-farm as a method of disposal after the harvesting season. To avoid the burning process that causing harmful towards human and soil paddy field itself, composting process is seen as a an environmental method in managing the abundance of rice straw at paddy field. Composting is a biological process in which organic

matter (OM) can be utilize by the aerobic thermophilic and mesophilic microorganisms as substrate and mainly will be converted into mineralized products (CO_2, H_2O, NH_4^+) or stabilized OM, mostly as humic substance (Bernal et al., 2009; He at al., 2009).

However, the main fraction of rice straw is lignocellulose which was difficult to degrade and make the efficient composting performance generally hard to be achieved or required a longer time for the decomposition process (Zhou et al., 2015). Regarding to the issue of lignocelluloses, rice straw will be burned before being used to help in accelerating the composting process, which is known as rice straw ash (RSA). Food waste was used to be composted with rice straw ash during this study because of its high moisture content. Besides that, in Malaysia, food wastes are one of the largest components of municipal solid waste produced (Karthirvale et al., 2003). Although considerable research has been conducted on composting of rice straw with various organic materials (Li et al., 2008; Qian et al., 2014; Rashad et al., 2010; Roca-Perez et al., 2009; Zhou et al., 2015; Zhu, 2007), but no information available on the effect of composting rice straw ash with food waste was done.

Application of stable and maturity of compost into the soil as organic amendment can improve the soil structure by increasing soil organic matter; improve the plant growth and soil fertility besides enhancing the function of soil for carbon sequestration (Piccolo et al., 2004). However, if immature and unstable compost was applied into the soil, it would fix the nitrogen contain in the soil and will restrict the plant growth by competing the oxygen and toxic substances will be released (Bernal et al., 2009). To produce a successfully compost and assure the safety of compost in agriculture land application, the stability and maturity of compost product need to be achieved. Stability of compost are refers to microbial activity. Maturity is refers to the amount of degradation of phytotoxic organic substances (Goa et al., 2010).

Bernal et al., (2009) and Nolan et al., (2011) pointed out that the compost stability and maturity cannot be well described by a single property or parameters. Thus, the stability of compost during this study will be refers to the changes of pH, temperature, moisture content, C:N ratio and aeration rate. Meanwhile, the maturity of compost will refer to the germination test.

The main objective of this study was to evaluated the stability and maturity of compost quality during composting of rice straw ash with food waste at initial C:N ratio of 25 and three different aeration rates of 0.4L/min.kg, 0.6L/min.kg and 0.8L/min.kg.

Materials and Methods

Source materials

Food waste (FW) was collected from stalls near School of Environmental Engineering, UniMAP. Rice straw (RS) was collected from a local farmer of paddy field at Arau, Perlis. RS was shredded to 2-3cm to allow a uniform size before the burning process using a shredder machine. RS was burned in a muffle furnace at 300°C for 30 minutes to produce rice straw ash (RSA). Goat dung used as a source of nitrogen for the composting mixture of RSA and was collected from goat farm at Padang Siding, Pauh, Perlis.

Besides that, the prepared liquid effective microorganisms (EM) will be poured into the mixture of compost as a source of microorganism to help in accelerating the decomposition process [20]. EM also functions to reduce the odour emission during the process. EM will be prepared according to the recipe obtained from Solid Waste Corporation (SWCorp), Perlis. One piece of *tempe* will mix with 250g granulated brown sugar and 3liter (fermented the mixture for 1

week before used) for 3kg of waste. The ratio of liquid EM (liter) to compost mixture (kilogram) is 1:1. RS, RSA, FW and GD was characterized for pH, moisture content, C:N ratio, total carbon and nutrient content (nitrogen, phosphorus, potassium) meanwhile the liquid EM was characterize for only pH. The characteristics of the raw materials are presented in Table 1.

Table 1: Characteristics of the Raw Composting Materials

Materials	pH	Moisture content (%)	Total Carbon (%)	Total Nitrogen (%)	C:N	Phosphorus (%)	Potassium (%)
Rice straw ash (300°C)	7.886	7.40	41.66	2.00	20.83	0.08	0.34
Food waste	7.556	81.92	40.00	2.50	16.00	-	-
Goat dung	7.997	11.55	18.22	1.01	18.04	-	-
Effective microorganisms	8.021	-	-	-	-	-	-

Composting experiment

A laboratory-scale of bin composter reactor used for this study was modified from other research (Andersen et al., 2010; Li et al., 2008) as shown in Fig.1. The reactor is a cone-shape. The dimension of bin composter is 50 cm height and 40cm and 30cm in diameter (top and bottom, respectively). The reactor had a removable lid to be opened each times when the temperature inside the reactor was dropped for sample collection and also for mixing and turning process. A hole was made on the lid of bin composter for gas measurement and air outlet. A rubber stoppers was used as a sealer to the hole during the composting process.

The reactor was equipped with a fine-masked net, 8 cm from the bottom to place the composting materials. An aeration air flow tube was installed 40 cm from the bottom of the reactor to maintain an aerobic condition during the composting process. The air was supply by using an air pump at a controlled rate. A hole also made at the center of the bottom reactor for leachate collection.

The mixture of rice straw ash and food waste with goat dung and EM as organic accelerator are manually mixed in a ratio of 1kg RSA: 2.4kg FW: 2kg GD: 1L EM. Three different aeration rate of 0.40, 0.60 and 0.80L/ (min.kg) OM was used during the composting process at an initial C:N ratio of 25. Each composting process lasted 30 days.

The air pump run continuously, but it turned off about 15 minutes for sample collection and also for mixing and turning process once every three days. About 50 gram of sample was withdrawn after each turning once every three days until the end. The sample was divided into two parts. One part was immediately analyzed for pH, total carbon and phytotoxicity evaluation. The other part was air dried to a constant weight at 60°C for 2 days for chemical analysis and then ground the sample to pass through 1-2mm sieve and stored in a dessicator.

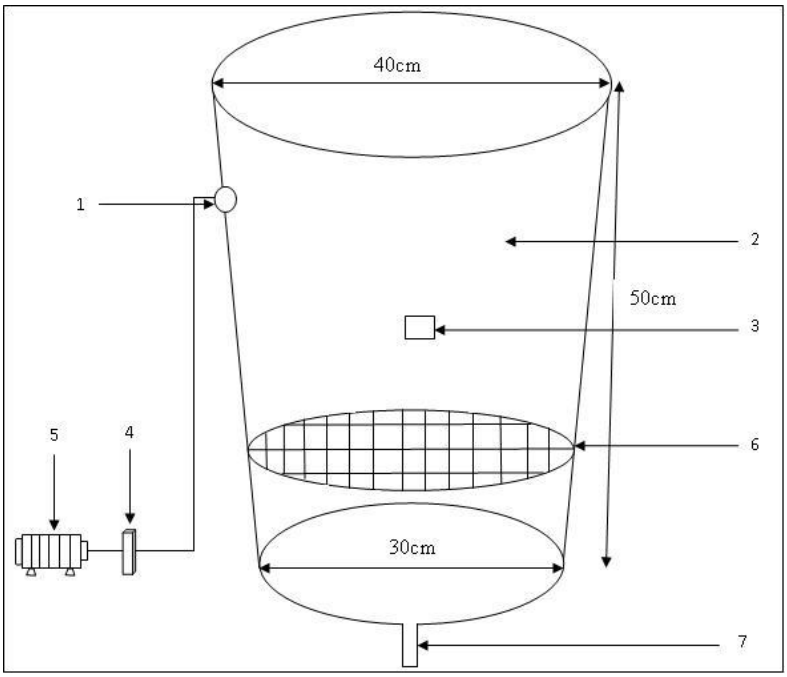

Figure 1:Composting Reactorand its Component: (1) Gas Sampling Port; (2) Composting Material; (3) Digital Thermometer; (4) Gas Flowmeter; (5) Air Pump; (6) Fine-Masked Net; (7) Leachate Sampling Port.

Compost analysis

The temperature of the compost pile was measured by a digital thermometer recorded daily. About 1g of sample was placed into 10ml de-ionized water, stirred up and then left the mixture to settle before measured the value of pH by using a pH meter electrode (Zhou et al., 2015). The moisture content was determined by oven drying 5g fresh sample at 105°C for a period of 24 hours (ASTDM, 2003). The carbon to nitrogen ratio was obtained by dividing the value of total carbon to the value of total nitrogen. The seed germination technique was used to evaluate the phytotoxicity of compost extracts (Zucconi et al.1981).

Results and Discussions

pH

The changes of pH in composting of rice straw ash and food waste at different aeration rates are shown in Fig.1. The pH values for composting mixtures at aeration rates 0.4L/min.kg, 0.6L/min.kg and 0.8L/min.kg increases in the early stages before slightly dropped at the later stages. The increases of pH in composting mixtures was due to the release of ammonia from ammonification and mineralization of organic nitrogen during the initial phase of composting (Wong et al., 2001). At the later stages, the pH decreased was caused by the decomposition of organic matter, volatilization of ammonical nitrogen and the production of organic and inorganic acids (Eklind and Kirchmann, 2000). The values of pH in all composting mixtures was in a range of 7-9 in which, acceptable for mature compost.

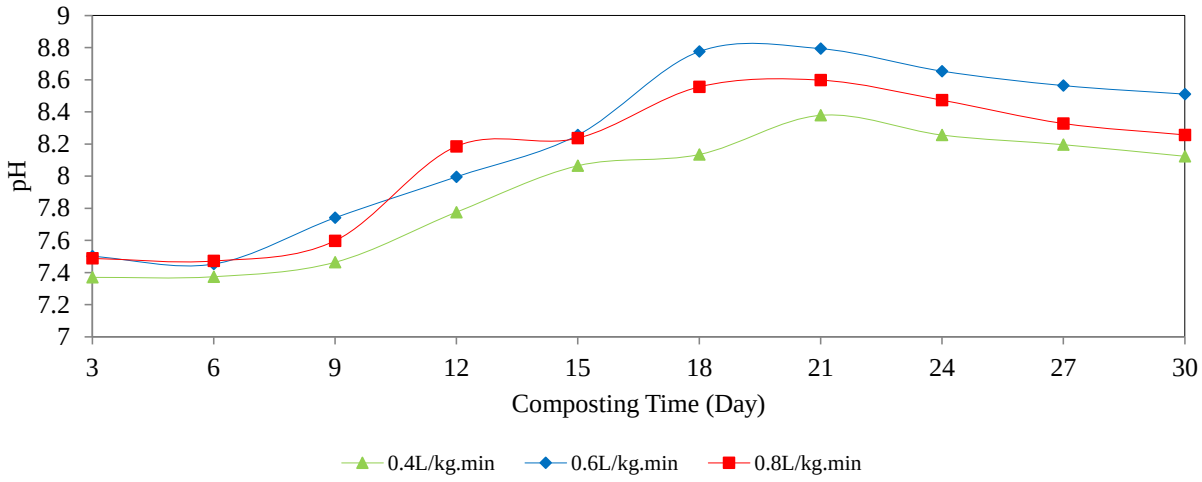

Figure 2: pH Variation over Composting Time

Temperature Profile

Fig.2. shows the changes of temperature during the composting mixture with aeration rates of 0.4L/min.kg, 0.6L/min.kg and 0.8L/min.kg. Temperature affected the physicochemical characteristic, not only biological rates and the population dynamics of microbes (Antizar-ladislao et al., 2005 Hu et al., 2009).It is a very important parameters to monitor the composting process in making the compost enough mature. There are three phases of temperature need to be achieve during the composting process which; meshophilic, thermophilic and curing phase.

According to Zhang and He (2006), all composting mixture must exceed 55°C for at least for three consecutive days to destroy the phatogen and weed seed. The temperature in three composting mixture increases rapidly to reach a maximum temperature of 56°C for aeration rate 0.4L/min.kg, 57°C for aeration rate 0.6L/min.kg and 54°C for aeration rate 0.8L/min.kg. The composting mixture with aeration rates of 0.6L/min.kg had a longest thermophilic phase for 10 days with maintained the temperature exceeding 55°C for 5 days. Composting mixture with aeration rate of 0.4L/min.kg had a thermophilic phase for 8 days and maintained the temperature exceeding 55°C for 5 days. It ensured the maximum pathogen reduction and the stabilization of organic matter for composting mixture with aeration rates of 0.4L/min.kg and 0.6K/min.kg. Although the composting mixture with aeration rate of 0.8L/min.kg had a thermophilic phase for 8 days, but it not meet the requirement for pathogen destruction because it not reach the temperature more than 55°C. The composting mixture entered the curing phase after the easily degradable compounds were depleted and then, the temperature slowly dropped to ambient temperature (Guo et al.,2012).

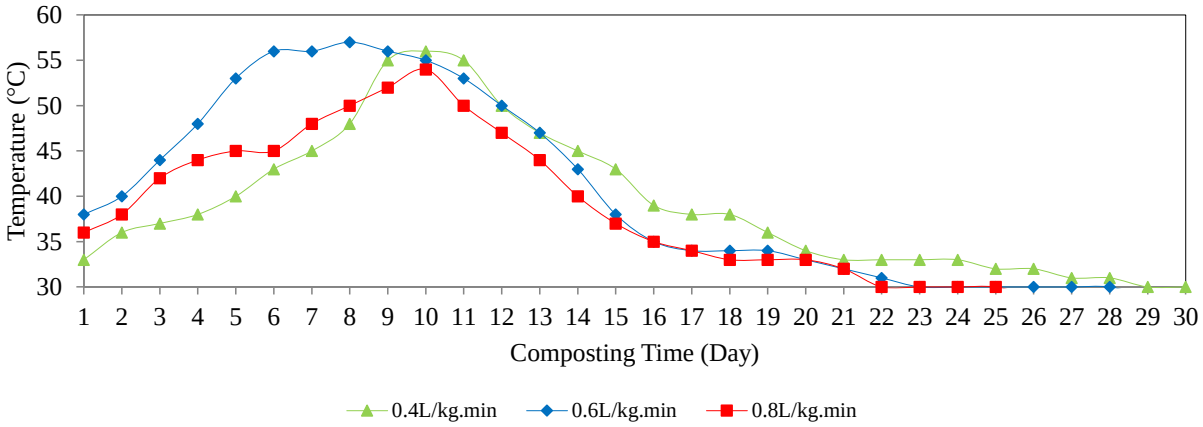

Figure 3: Temperature Variation over Composting Process

Moisture Content

Fig. 3 shown the changes values of moisture content that increasing at the early stage of composting process before decreased at the later stage for all composting mixture with aeration rates of 0.4L/min.kg, 0.6L/min.kg and 0.8L/min.kg. Actually, the different aeration rates used not directly affected the value of moisture content obtained. It is because, the moisture content is important as a medium in transporting the dissolved nutrients that are required for the physiological and metabolic activities of microorganisms (Kumar et al., 2010). However, the value of moisture content must be between in a range of 40-60% to form a mature compost (George, 2010 and Tchobanoglous et al., 1993). All the composting mixture of aeration rates of 0.4L/min.kg, 0.6L/min.kg and 0.8L/min.kg obtained a values of moisture content in that range and the compost had mature after 30 days of the composting process.

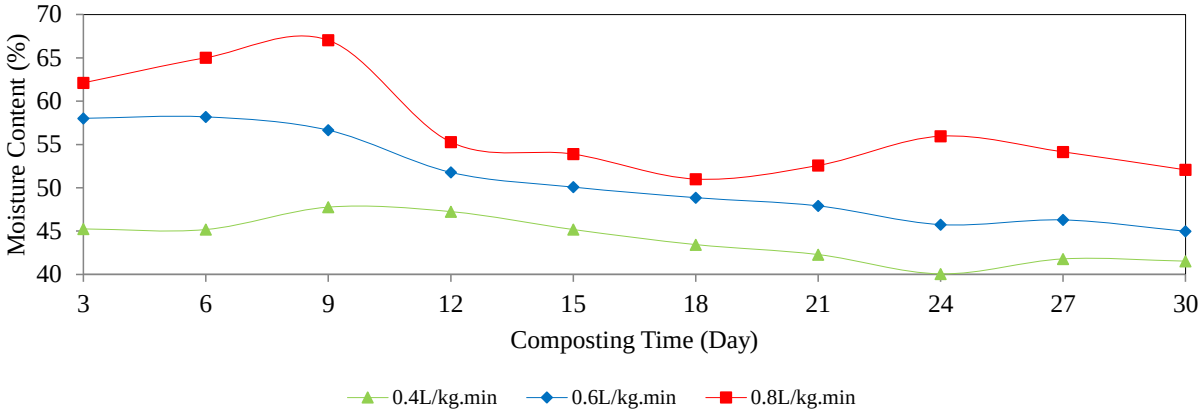

Figure 3: Moisture content Variation over Composting Time

Germination Index

The changes of germination index in composting of rice straw ash and food waste at different aeration rates of 0.4L/min.kg, 0.6L/min.kg and 0.8L/min.kg are shown in Fig.4. According to Gariglio et al., (2002) and Brewer and Sullivan, (2003), germination test is a sensitive indicator

of maturity and often conducting to evaluate the phytotoxicity of compost produced. If the GI value obtain more than 80%, it can be considered that the compost has reach the level of maturity and practically the compost was free from phytotoxins substances and mature [Tiquia et al., 2010; Wei et al., 2000].

The GI values was increased for all composting mixture with increase the composting time resulting that all the toxic materials like volatile fatty acids mainly acetic acid and ammonia was decomposed completely (Fang et al., 1999). At the end of the composting process, the GI values for composting mixture with aeration rates of 0.6L/min.kg and 0.8L/min.kg were over 80% suggesting that the compost produce was free from toxic substance and enough mature. Composting mixture of aeration rate 0.4L/min.kg only reach 75.56% of GI value on days 30, which was never over 80%. It showed that composting mixture with aeration rates of 0.4L/min.kg was slightly contain toxic materials due to the incomplete decomposition of volatile fatty acids and ammonia

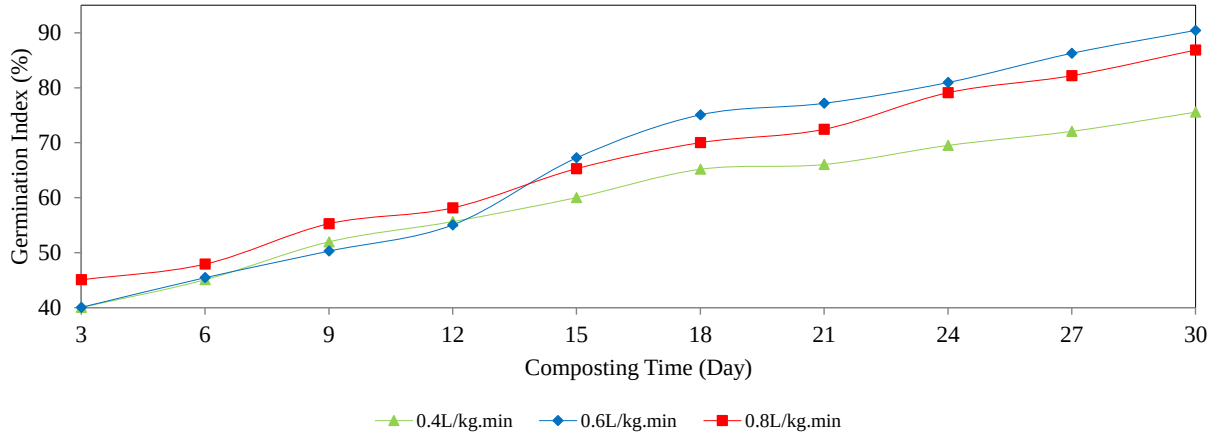

Figure 4: Germination Index over Composting Time

C:N Ratio

The C:N ratio was important to be used to assess the compost maturity during the decomposition process [Wei et al., 2000]. Table 2. shown the result of composting mixture with different aeration rates of 0.4L/min.kg, 0.6L/min.kg and 0.8L/min.kg and end C:N ratio on day 30 of the composting process. The end C:N ratio for all composting mixture were decreased to 13 for aeration rate 0.4L/min.kg, 12 for 0.6L/min.kg and 10 for 0.8L/min.kg, was due to the mineralization of organic matter (Rasapoor et al., 2009). During the composting process, the C:N ratio appeared stable in maturation stage. According to Bernal et al., (2009), when C:N ratio decreased below 15, the compost had satisfied an acceptable standard of maturation. Thus, all the composting mixture with aeration rates of 0.4L/min.kg, 0.6L/min.kg and 0.8L/min.kg can be defined as mature and can be used without restriction.

Table 2: The results of end C:N ratio for the composting mixtures

Aeration rate (L/kg.min)	Initial C:N ratio	End C:N ratio
0.6	25	13
0.6	25	12
0.6	25	10

Conclusion

The stability and maturity of compost quality during composting of rice straw ash with food waste have been investigated at initial C:N ratio of 25 and three different aeration rates of 0.4L/min.kg, 0.6L/min.kg and 0.8L/min.kg. The pH and moisture content values obtained for all three composting mixture obtained in a range that acceptable for mature compost. The composting mixture with aeration rate of 0.4L/min.kg and 0.6L/min.kg maintained the temperature exceeding 55°C for 3 days and 5 days during the composting but the composting mixture with aeration rate 0.8L/min.kg only reach the thermophilic phase but the temperature not exceeding 55°C for pathogen destruction. The final GI value in composting mixture of 0.6L/min.kg was 90.43% and 86.86% for composting mixture with aeration rate 0.8L/min.kg. However, the composting mixture with aeration rate of 0.4L/min.kg was never ever over 80%, which only recorded the GI value of 75.56%. The final C:N ratio for all composting mixtures also obtained in a range that acceptable for mature compost. Therefore, the stability and maturity in composting mixture with aeration rate of 0.6L/min.kg was superior to those in composting mixtures of aeration rates of 0.4L/min.kg and 0.8L/min.kg in term of temperature and germination index.

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THE IMPACT OF HIGH-PERFORMANCE WORK SYSTEMS ON ORGANISATION PERFORMANCE: THE MODERATING ROLE OF HRIS AND MEDIATING ROLE OF KNOWLEDGE PROCESS CAPABILITY AND WITHIN BANKS IN JORDAN.

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Abstract: *In this paper, the effects of High-performance work systems (HPWS); ability, motivation and opportunity-enhancing HRM practices on organization performance, this effect examined along with knowledge process capability as a mediator on this relationship, HRIS will be examined as a moderator between knowledge process capability and organization performance. The construct of organizational performance measured by the combination of turnover intention, service quality, and financial performance. This paper contributes of unlocking "black box" issue of the little understanding of HPWS-organization performance relationship through the mediating role of knowledge process capability and moderating role of HRIS on HPWS-organization performance relationship with the insight of ability motivation opportunity (AMO), resource-based view (RBV) theory and contingency theory. A questionnaire was applied to collect data from the study sample, which consisted of 320 managers and employees working in various headquarters of Jordanian banks. The study hypotheses were then tested using SPSS and AMOS software by applying structural equation models (SEMs) The findings show the significant impact of ability, motivation, and opportunity-enhancing human resource on organization performance with partial mediation of knowledge process capability, and positive moderation of HRIS.*

Keyword: *Ability-enhancing HRM practices, High-performance work systems, knowledge process capability, motivation-enhancing HRM practices, opportunity- enhancing HRM practices, organization performance.*

Introduction

Human resources management has gained greater relevance since the early ’90s. Agreement over the strategic value of people to firm success has come hand in hand with the approval of resource-based claims concerning the relevance of internal resources as sources of competitive advantage (Wright et al., 2001). Research on strategic HRM issues has grown exponentially over the past years. A best practice approach to strategic HRM is referred to as high-performance work practices (HPWS) system (Huselid, 1995). HPWS consist of HR practices that improve employees` capabilities, motivate employees to use their capabilities for achieving organizational goals, and provide them with opportunities to utilize their capabilities to full potential (Yanadori & Jaarsveld, 2014). Several researchers have used the resource-based view in an attempt to

explain the mechanism by which HRM impacts on performance (see, for example, Wernerfelt, 1984; Wright et al., 2001). Such an approach suggests that HRM contributes to a sustained competitive advantage and leads to enhanced organizational performance by leveraging human resources, discretionary efforts, and desired behaviors (Becker & Gerhart, 1996; Singh et al., 2012b).

The strategic relevance of HPWS can be understood through the AMO model. The initials AMO refer to 'ability-motivation-opportunity' (Bailey, 1993; Appelbaum et al., 2000; Boselie et al., 2005). In theory, the AMO components stimulate employee performance. At the organizational level, and reflecting on the AMO model, high-performance HR practices can be classified as practices that aim to enhance employees` ability (e.g. using selective hiring, training), motivation (e.g. using compensation and performance appraisal), opportunity to contribute to the company (e.g. using communication and information sharing) (Gerhart, 2005). However, there are some remaining questions referred to as the "black box" that is yet to be answered. This black box question relates to the intermediate and mediating variables linking HPWS and performance, the mechanisms by which relationships happen. In response to this black box question, some models have been proposed that were considered to be the key to the opening of the black box and assisted as the mediating stage between HRM and performance (Guest, 1997; Becker et al., 1997; Wright and Nishii, 2007b). Although many models have been suggested, the widely accepted theoretical basis is the "AMO" framework (Savaneviciene and Stankeviciute, 2011)

Aligned with the knowledge-based view, we propose that HPWS influence knowledge management process, which in turn enhances employee's performance. We follow the argument that HPWS influence the quality of social relations among employees (Evans & Davis, 2005), which then allows and motivates them to create and share knowledge (e.g., Cabrera, Collins, & Salgado, 2006; Hansen, 2002; Mooradian, Renzl, & Matzler, 2006; Reagans & McEvily, 2003). We focus on knowledge management effectiveness as the mediating mechanism in the HPWS–organization performance relationship. Knowledge management effectiveness ensures that employees receive and understand the knowledge they need to perform best (Sabherwal & Becerra-Fernandez, 2003).Recently, traditional HRM has been lifted its attention on the strategic management of organizations through a significant contribution to strategic workforce analysis and knowledge management to achieve the organizational goal (Lawler & Mohrman, 2003). This shift is attributed to human resource (HR) technologies such as HRIS - human resource information system. HRIS is defined as an integrated information system that comprises some applications of HR (Masum, Bhuiyan, & Kabir, 2013). Due to its ease of speed access to information related to employees, HRIS can improve the strategy of the decision-making process, and therefore it is considered as a strategic partner of the firms (Rodríguez & Ventura, 2003). Guided by the contingency theory, this study examines whether the effects of HPWS are influenced by the extent of HRIS. The study contribute to the literature on human resource management by analyzing the role of technology , in line with the contingent line of research on the effectiveness of HPWS, that technology imposes certain requirements that influence the optimal mix of human resource policies to be applied, and hence the potential impact of the use of HPWS on firm's performance. In summary, we examine a moderated mediation model linking HPWS to the organization performance via knowledge management effectiveness and investigate HRIS's role in moderating the relationship between knowledge management effectiveness and organization performance.

Problem Statement

According to some recent research works (Darwish, Singh, & Mohamed, 2013; Katou & Budhwar, 2006), human resource management practices do not directly affect organizational performance; these practices can influence some intermediate variables which will then have some significance on performance (Dyer & Reeves, 1995). This issue is known as the 'black box' in the context of HRM-performance research. As a result, some researchers have established to look inside the 'black box' in an attempt to understand the mechanism through which HPWS affect organizational performance. A wide range of mediating variables have been used by researchers to find an effective mechanism through which HRM can best impact on performance, including employee satisfaction, and organizational culture. There was a call of some researchers (Dyer & Reeves, 1995; Guest, 2011) for the exploration of new theoretical frameworks with different mediating variables. In this respect, Becker and Huselid (2006) claim that the HPWS-performance relationship is mediated by other strategic capabilities, our study will utilize mediating and moderating variables: knowledge process capability (KPC) and Human Resource Information System (HRIS).

Banks play a significant role in any economy in general and in the Jordanian economy in particular. It is then essential to study HPWS-Organisation performance relationship after the most recent global economic crisis and its impact on the performance of the banks operating in Jordan while Jordan one of the Middle East countries and few researchers have discussed the effect of HPWS on organizational performance specifically in this region. This study thus attempts to measure and determine the relationship and the effect of HPWS on the performance of the banks operating in Jordan.

Literature Review and Hypothesis Formulation

(Ability, Motivation and Opportunity)-Enhancing HRM Practices and Organisation Performance.

Recent studies have focused on the examination of general HR practices and its effect on organizational performance (e.g. Darwish and Singh, 2013) and only few have focused on the HPWP- performance link. High-performance work systems (HPWS) are bundles of HRM practices that enhance employee's ability and skill, motivation, and involvement Appelbaum et al. (2000) argued that a combination of three types of HR practices is associated in building an HPWP system (HPWPS). Ability, motivation and opportunity framework of Appelbaum et al. (2000) has been considered by many authors as a valuable tool for understanding the HRM-performance linkage. The use of the AMO framework as a model for conceptualizing HPWP is theoretically probable (Purcell and Kinnie, 2007; Jiang et al., 2012; Jiang et al., 2013) and it offers the basis for understanding the strategic value of HPWP (Luna-Arocas and Camps, 2008). While Jiang et al. (2012) provide preliminary support for the use of the AMO model to better conceptualize HPWP based on their meta-analytic review, their findings require empirical confirmation. The limitation of previous literature remains the lack of empirical investigation explicitly aimed at validating the AMO framework. This research will try to provide empirical evidence to understand the relationship between HPWS and organization performance and contribute to unlocking black box issue based on AMO model hypothesizes that (ability, motivation and opportunity)-enhancing HR practices positively influence organizational performance. Based on Dyer and Reeves (1995) work organization performance measured by

three measures turnover intention, service quality, and overall organization performance, summarized in the following three hypotheses:
H1: There is a positive relationship between (Ability, motivation and opportunity)-enhancing HRM practices and organizational performance.

(Ability, Motivation and Opportunity)-Enhancing HRM Practices and Knowledge Process Capability)

Knowledge management defined as the holistic combination of measures for managing people, processes, and technology and the explicit integration of human resource management into knowledge management initiatives" (Scarbrough, et al., 2004). In a review of representative empirical studies of how HPWP influence of knowledge management, we found that the employment of ability-enhancing HRM practices, such as staffing, training, and performance appraisals, influences individual ability with knowledge process. Specifically, through staffing, organizations identify, attract, and hire individuals with the desired ability, skills, and prior knowledge for vacant positions (e.g., Lopez-Cabrales, Prez-Luo, & Cabrera, 2009; Minbaeva et al., 2003). Training enhances the human capital needed to achieve the knowledge goals of an organization (e.g., Beugelsdijk, 2008; Laursen & Foss, 2003; Minbaeva, 2005; Minbaeva et al., 2003; Simonin & Özsomer, 2009; Zarraga & Bonache, 2003). And motivation-enhancing HRM practices such as performance appraisals provide employees with feedback on their performance and competencies and gives them direction for enhancing their competencies to meet the organization's knowledge needs (e.g., Lopez-Cabrales et al., 2009; Minbaeva, 2005; Simonin & Özsomer, 2009). And opportunity-enhancing HRM practices such as information sharing and communication facilitate the knowledge process between employees in the organization. Based on the previous empirical research the following hypothesis clarifies the relationship between HPWS and knowledge management process.
H2: There is a positive relationship between (Ability, motivation and opportunity)-enhancing HRM practices and knowledge process capability.

Knowledge Process Capability and Organisation Performance

Knowledge management is a process that focuses on knowledge-related activities to facilitate knowledge creation, accusation, protection, and conversion, with the ultimate aim of leveraging organizations' intellectual capital to achieve organizational objectives (Cavaleri, 2004; Sveiby, 1997; Zhou and Fink, 2003 Gold et al., 2001). Knowledge is an intangible concept that has been classified and defined in a variety of ways (e.g., Hedlund, 1994; Nonaka and Takeuchi, 1995; Spender, 1996). Organizations expect to utilize that information provided through KM to help them accomplish their missions (Wiig, 1995). The process of creation, acquisition, and protection of knowledge is posited to improve organizational performance (Laurie, 1997), following (Gold et al., 2001) model the following hypothesis demonstrate the relation between knowledge process capability (Acquisition, protection, conversion, and application) and organization performance. The knowledge-based theory of the firm emerged from the resource-based theory by focusing on intangible resources rather than on tangible assets. In this perspective, knowledge is the most significant resource. The knowledge-based theory of the firm views knowledge as a key resource of the firm and a source of competitive advantage that improves firm performance (Davenport

and Prusak, 1998; Grant, 1996; Kogut and Zander, 1996; Spender, 1996). In this theoretical perspective, firms are viewed as distributed repositories of tacit and explicit knowledge whose heterogeneous knowledge bases are the key determinants of sustained competitive advantage (Kogut and Zander, 1996; Spender, 1996). Thus, capabilities to manage and create knowledge can provide sustainable competitive advantage (Argyris, 1999; de Geus, 1988; Prahalad and Hamel, 1990; Hatch and Dyer, 2004; Hayes et al., 1988).
H3. There is a positive relationship between Knowledge process capability and organisation performance.

Mediating Role of Knowledge Process Capability on HPWS and OP Relation
Knowledge-based view of the firm represents firms as repositories of knowledge and competencies (Kogut and Zander, 1996; Spender, 1996). According to this view, organizational performance (Ghoshal and Moran, 1996) of firms arises from their superior capability in creating and transferring knowledge. Knowledge creation and innovation result from new combinations of knowledge and other resources (Cohen and Levinthal, 1990; Kogut and Zander, 1992). Organizations can use a set of human resource practices to enhance the level of potential in knowledge process capability, which practically would enhance employees' capability toward the accomplishment of organizational objectives. Previous studies have revealed the critical role of knowledge process in the successful organizations (Chia, 2003; Gold et al., 2001; Kogut & Zander, 2003; Matusik & Hill, 1998; Nonaka & Takeuchi, 1995). Much research reveals that high-performance HRM practices do not directly impact organizational performance (ALDamoe, Yazam, and Ahmed, 201 1; Collins & Smith, 2006; Katou, 2008). This is because the underlying mechanisms by which these practices exert their impact are still not completely known (Hislop, 2003; Fu, 2013). Some studies have identified the missing link between HRM practices and organizational outcomes, reflecting the presence of a black box (Hilsop, 2003; Morrow and McElroy, 2001). Earlier studies have found the significance of knowledge process management as a mediator. For example, Haque and Anwar (2012) found that knowledge management mediated the association between management support and IT infrastructure and OP. Huang and Li (2009) demonstrated that KM mediated the link between social interaction and performance. Moreover, Zheng, Yang, and McLean (2010) showed that KM mediated the association among organizational culture, strategy, structure, and organizational effectiveness , this research will empirically test the mediating role of knowledge process capability as mediator on HPWP and organization performance relation in Jordan context as one of the middle eastern countries , the following hypothesis illustrate this relation.
H4: Knowledge process capability mediate the relationship between (Ability, motivation and opportunity)-enhancing HRM practices and organization performance.

Moderating Role of HRIS on Knowledge Process Capability and Organisation Performance
In today's information economy, rapid access to knowledge is critical to the success of many organizations. Knowledge management has emerged as an essential field for practice and research in information systems. The rise of the knowledge economy has seen a proliferation of information and communication technologies, coupled with greater organizational complexity, the growth of virtual and global organizations and rapid change. Information systems technology has introduced broad spread implementation of human resource information systems (HRIS) that more fully allow organizational members to participate in information sharing and decision-

making to gain the competitive edge. The study above contributes to the existing literature by using quantitative data to test the role of HRIS in explaining the impact of HPWP on organizational performance. In particular, it explores whether HRIS serves as a mechanism which enables knowledge process capability to enhance organizational performance. Although knowledge process capability can enhance organization performance independent of HRIS use, the basic premise in this study is that the effect of knowledge process capability is likely to be improved with a high level of HRIS use. Organizations are more inclined to engage in HPWP when a high level of HRIS is adopted because the use of technology to support HRM implementation is more consistent with HR practices which are geared toward employee's ability, motivation, and opportunity, this study will test HRIS positive moderation role on the knowledge process capability and organization performance, by the following hypothesis:
H5: HRIS positively moderate Knowledge process capability and organization performance relation.

Methodology

Study Population

The population of this research is all the banking organizations working in Jordan that were listed and licensed as banks at the Association of Banks in Jordan and Central Bank of Jordan according to their reports for the year 2017. In 2016 there were 25 banks operating in Jordan: 13 national commercial banks, three national Islamic banks, eight foreign commercial banks, and only one foreign Islamic bank.

The Choice of Respondents and Sampling

This research will be conducted in the headquarters of the banking organizations with all employees managerial and non-managerial. Those people were chosen to be the respondents of this study because they are the only people who have the required information about HRM practices, policies, and HRIS systems issues, management, problems and its importance for organizational success, also for their critical roles in their banks. All managerial and non-managerial employees in headquarters of Jordanian banks; National banks whether they are Islamic or commercial, foreign banks whether they Islamic or commercial will be the population of this study. At the point of this study, there are 25 bank works in Jordan with 18773 managers and employees in headquarters of Jordanian bank (Central Bank of Jordan, 2017; Ministry of Labor reports, 2017) table 3.1 illustrate the different types of Jordanian banks and numbers of employees either managerial and non managerial in their headquarters.

Table 1: classification and number of employees in Jordanian banks

Bank classification	No. of banks headquarters	No. of employees
National commercial banks	13	14069
National Islamic banks	3	3165
Foreign commercial banks	8	1367
Forgiven Islamic banks	1	172
Total	25	18773

Source: (Central Bank of Jordan Report,2017)

Sampling Technique

In the present study, a stratified random sampling method was used to determine the sample as the present study could evaluate significant differences in bank sector .In general, the population of the study consists of four sectors of banks in Jordan, namely, international commercial banks, international Islamic banks, foreign commercial banks, and Islamic foreign banks. , stratified sampling technique will be employed. According to the stratified sample steps, the study population size was 18773. According to Krejcie and Morgan (1970), the desired sample size was 320. A proportionate stratified sample was used to ensure that the number of elements in each stratum is proportionate to the number of subjects in the population (Gay & Diehl, 1992). The stratified sample was executed as follows: The estimated 1.7% was determined by dividing the sample size (320) with a total of the population (i.e., 18771). The sample is drawn, and its distribution across the stratum is illustrated in Table 2

Table 2: Stratified random sampling of the study

Sectors	No. of population	Proportion of 1.7%
National commercial banks	14069	239
National Islamic banks	3165	54
Foreign commercial banks	1367	24
Forgiven Islamic banks	170	3
Total	18771	320

Analysis and results

Confirmatory factor analysis (CFA)

Therefore, the procedure for assessing the measurement model of latent constructs of the study was conducted. The Confirmatory Factor Analysis method can evaluate the Validity and Reliability of the latent constructs. The study needs to perform CFA for all latent constructs involved in the study before modeling their inter-relationship in a structural model (SEM). Nevertheless, the Unidimensionality assessment should be made first before evaluating validity and reliability. The factor loadings of all the items were higher than 0.5.

Moreover, the results showed that all factor loadings are significant at 1% level of significance and with Cronbach's alpha scores all above 0.7 (Hair et al., 2010). Also, the composite reliability (CR) and average variance expected of the constructs all are above 0.6 and 0.5 as recommended by Awang, (2014). Moreover, the normed chi-square of 3.843 indicates good model fit as this score falls within the accepted range of a value between 1 and 5 (Hair et al., 2010). The results of CFI, AGFI, GFI, AGFI, TLI, and NFI were also acceptable with both values approaching 1 – the benchmark for good model fit (Bentler, 1990; Schumacker & Lomax, 2004). The fitness of a measurement model is indicated through certain Fitness Indexes below.

Model Evaluation

To evaluate the overall fit of a model, we used the chi-square statistic, which is based on a comparison of the predicted and observed covariance matrices (Frone et al. 2001). A non-significant chi-square value indicates a good fit. We also used other goodness-of-fit indices that are less sample size dependent because the chi-square statistic is known to be sensitive to large sample sizes (Bollen, 1989; Kline 2005). Therefore we also evaluated model fit with additionally recommended fit indices that include the comparative fit index (CFI), the Root Mean Square

Error (RMSEA), and the standardized root mean square residual(SRMR) (Kline, 2005). Briefly, the CFI assesses the relative improvement in fit of the theorized model compared with the independence/null model which assumes no relationship between any of the variables in the model. A rule of thumb for the CFI is that values greater than roughly .90 indicate reasonably good fit (Kline, 2005). SRMR is a measure of the overall difference between the observed and predicted correlations. SRMR values of less than .10 are generally considered an indication of a good model fit (Kline, 2005). Measures of RMSEA of less than .08 are also indications of a well-fitting model.

Model Analysis

Table 4.13 below presented the hypothesis summarized by Structural Equation Model (SEM) of the study. It showed that the standardized beta estimates and standard error of regression weights (S.E.). Moreover, it revealed the critical ratio for regression weights (C.R.) and the probability value (P-value) with the result of the particular construct of this study. Therefore, the first five hypotheses of this study are tested below.

Table 3 Summary of the five Hypotheses

Hypothesized Path			Standardized path coefficient	S.E	C.R	P-value	Result	Supported
H1	OP	<--- HPWP	0.71	0.099	7.125	0.000	Significant	Yes
H2	KPC	<--- HPWP	0.49	0.064	7.697	0.000	significant	Yes
H3	OP	<--- KPC	-0.05	0.005	9.143	0.000	Significant	Yes

Note: *** indicate a highly at P<0.05

Table 3 showed the respective beta estimates of the hypotheses in this study. Firstly, the H1 posited that HRM has a significant impact on the OP. The result of the direct effect showed that the hypothesized relationship between HRM and the OP is positive and statistically significant as proposed by the study. The beta estimate in the relationship between HRM and the OP is 0.71 with a probability value of (0.000) which is lower than the level of 0.05. This research hypothesis is supported by the data. The study concluded that HRM has a significant positive effect on OP.

Moreover, the H2 posited that HRM has a significant impact on the KPC. The result of the direct impact showed that the hypothesized relationship between HRM and KPC is Positive and significant as proposed by the study. The beta estimate in the relationship between HRM and KPC is 0.49 with a significant probability value of (0.000) which is less than the level of 0.05. Therefore, the research hypothesis is supported by the data. The study concluded that HRM has a significant and positive influence on KPC.

Also, the H3 posited that KPC has a significant impact on OP. The result of the direct effect showed that the hypothesized relationship between the KPC has a negative impact on the OP as proposed by the study. The beta estimate in the relationship between KPC has a significant effect on the OP is -0.05 with a probability value of (0.000) which is lower than the level of 0.05. Therefore the research hypothesis H5 is supported by the data. The study concluded that KPC has a negative and significant effect on OP.

To measure the mediation effect of the hypothesized path, the effects directly without mediation, with mediation and the indirect effects were evaluated. The total effect is the degree to which a change in the HRM related to OP. The indirect impact is the extent to which changes in the HRM produced a change in the OP through the KPC. The direct effect related to the extent to which changes in the HRM is directly related to the OP without going through the KPC. The sum of direct and indirect effects equals to the total effects. This study heeded the recommendation made by Mathiew and Taylor (2006) to determine the degree of mediation (partial or full mediation). If both the indirect effects and direct effects are significant, then shows a partial mediation. If the indirect effects and total effects are significant, but the direct effects are not significant, it revealed a full mediation. Table 4.8 tabulated the direct effects without mediation and with mediation, and the indirect effects of the hypothesized path.

Table 4 Results of Hypothesis Testing of KPC as Mediators

Relationship	Indirect Effect	Direct Effect	Total Effect	supported
HRM and OP (KPC as mediator)	0.49	0.71	0.02	Partial Mediation

Note: *** indicate a highly at P<0.05

Table 4.8 revealed the indirect effects, direct effects and total indirect effects of the hypothesized paths. Thus, the study concluded that KPC is a partial mediator to the relationship between HPWP and OP and moderating effect of HRIS on the relationship between Knowledge process capability and organization performance.

Conclusion

The main purpose of the current study is to analyze the contribution of HPWP to organizational performance, within the Middle Eastern context, using a cross-sectional study to infer the causal relationships among variables. The impact of HRIS and knowledge process capability on organizational performance was also examined proposing a direct effect model among both variables. Finally, the study argued that the positive effect of HPWP on performance is mediated by knowledge process capability and moderated the effect of HRIS on this relation. In what follows, a discussion of the study results and their main implications are provided.A growing body of research has found empirical support for the relationship between HPWP and indicators of organizational performance (Shih et al. 2006; Huselid 1995; Guest et al. 2003; Guthrie 2001). This study hypothesized that there is a positive relationship between HPWP and organizational performance. The results showed good support for the hypothesis. The result is consistent with earlier research findings in other contexts (Huselid 1995; Chenevert and Tremblay 2009). This is

important because it demonstrates that HPWP when applied in firms operating in the Middle East can also lead to performance improvements. It is also consistent with few studies conducted in the Middle Eastern context (e.g., Darwish et al., 2013; Ramdani et al., 2014; & Moideen Kutty et al., 2011). Moreover, the current study provides evidence for the mediation role of knowledge process capability on HPWS and organisation performance relationship This result supports previous arguments (Garcı´a-Morales, Llorens-Montes, and Verdu´-Jover, (2006)) and is consistent with few empirical research which examined knowledge management and performance link (lies & Yolles 2002; Claudelle, 2003; Bercovitz & Feldma, 2007). Moreover, the current study provides evidence for the positive moderation role of HRIS on knowledge process capability and organization performance relationship. This result supports previous arguments for the value of HRIS use (Ngai et al., 2008) and is consistent with few empirical research which examined HRIS and performance link (Ruel et al., 2007; Bondarouk et al., 2009). This result can be seen remarkable as it points to the vital role different information systems (IS) can play in helping firms improve their performance.

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LITERATURE FOR LIFE IN VIEW OF IQBAL'S LETTERS

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Abstract: *Literature is important to societies because it is a mirror of things that are happening or have happened within a society. Literature is the foundation of humanity's cultures, beliefs and traditions. It serves as a reflection of reality, a product of art, and a window to an ideology. Everything that happens within a society can be written, recorded in,and learned from a piece of literature. Allama Iqbal is regarded as one of the most influential Muslim poet and scholar of the 20th century throughout the Muslim World. For Iqbal the literature should not slavishly imitate the existing realities but should be idealistic. Writers can address the existing issues and their solutions through characters that should become ideals for the readers, so that readers learn to apply the same approach in their lives. Also, writers and poets are responsible to guide the readers towards the positive side of the world, and to describe and show beauty, love, desire and quest for glory. Literature should have vision and inspiration that could lead the reader towards character development and could unfold the layers of thinking in their mind.*

Key words: *Allama Iqbal, Life, Humanity*

The creator of this panoramic world has created everything for some purpose.It is mentioned in the Holy Quran:

ربنا ما خلقت هذا باطلا۔ (سورۃ آل عمران)

"*Our Lord! Not for naught hast though created all this." [3.191]*

Exactly likewise the human temperaments, nature and other various human potentials are created for some purpose. The creativity of literature and art is a gift of Almighty Allah.

When a masterpiece of Art is created the human being turn anxious for its expression, sometimes a writer or poet depicts its arts with his intrinsic desire but usually some external element becomes its stimulant. If the art does not find ways of its expression the precious gift of Almighty Allah vanishes like fetus succumbs in the womb of mother without proper nourishment, or at least becomes very weak to survive.Likewise there is a stimulating force behind the accomplishment of

Every art. Iqbal says:

رنگ ہو یا خشت و سنگ،چنگ ہو یا حرف و صوت
معجزہء فن کی ہے خونِ جگر سے نمود(1)

(The miracle of art springs out from the life blood of artist whether he creates a masterpiece from pigments,bricks,stones or with the help of harp, words or the sounds.)

If we study the history of developed nations, we find ample proofs that the writers, poets, the philosophers of those nations inspired to achieve the dignity and glory. But those who studied art

for fun only ,they deviated their attention from the real problems of life; they inspired them to escapism instead of searching new horizons, by using all other ways of merrymaking like music or dance. Such writers proved harmful to their nations.

Iqbal said about such poets in the following lines:

شاعر کی نوا مردہ و افسردہ و بے ذوق
افکار مین سر مست نہ خوابیدہ نہ بیدار

(If the poetry of a poet is dead ,bereft and is charmless ,though he/she seemsawake,is completely lost in thoughts.)

وہ مرد مجاہد نظر آتا نہیں مجھ کو
ہو جس کے رگ و پے میں فقط مستی ء کردار(1)

(I do not see such a holy knight who posses a character of thoroughly high moral)

About the aim of art, Iqbal explained in his article which he delivered in Kabul in these words:

"I believe that Arts e.g literature, poetry, painting,music or architecture must be helper or servant of life. So I consider the Art as invention and not the tool ofrecreation.The poet can reinforce the foundation of a nation as well as canruin it. This is the duty of poets of a nation that they must be real leadersof youth. They may not magnify the death more than the greatness of life because when the art magnifies the picture of death it becomes fearful and destroys the charm of life and the beauty without power is the message of death.

دلبری بے قاہری جادوگری ست
دلبری با قاہری پیغمبری ست(3)

Everyone is known by the usage of all those qualities which are bestowed upon him by the Great Creator. Iqbal also used his message "Iqbal s' Islam" through his art of poetry. But when he kept in view his same purpose a fine and matchless art was created by him which fascinated the masses. He wrote in a letter to Shaukat Hussain about it:

"Meter in my poetry is secondary thing, and this is not my desire that I may be counted among the poets of the era."(4)Iqbal s' best poetry is beyond doubt but when the aim of service of Islam through his poetry is in his view, he had never taken for granted the grammar or the delicacies of language rules.

He wrote to Shaukat Hussain in a letter of 6th Jan 1919:"My poetry is not free of mistakes, but now Idon't have time to pay attention to these things.It is easier to create a new poem than to decorate an older one."(5)The desire of achieving aim through poetry of such a high degree is found with him , in a letter to Syed Suleman Nadvee he wrote:"All that you wrote about prosody is right but purpose of this poetry Masnavi (Israr-e khudi) was not like that , I therefore didn't care for some such things ."(6)

Iqbal loved his purpose so much that he didn't like to be called as such a poet or philosopher, who leads all his life in the Art for the sake of art. His aim was great and that was the reinstatement of the declined Umma. He stated in his letter;

"My aim of poetry has never been literature for the sake of literature as I don't have any time for paying attention to its delicacies. Creating of revolution in minds is the only purpose of

it. I try to express those thoughts which I deem suitable. It would not be odd when the generations of future would not consider me a poet at all because the Art demands the struggle of the highest degree which is not possible for me in these circumstances."(7)

Allama Iqbal was in favour of a live and dynamic literature which may awaken the dormant nations like "Soor -e-Israfeel". Iqbal says:

شاعر کی نوا ہو کہ مغنی کا نفس ہو
جس سے چمن افسردہ ہو وہ بادِ سحر کیا(8)

(If the verses of a poet saddens, and singers song does not inspire, all this would be like a morning breeze which paradoxically wilt the garden).

The contemporary literature of Islamic Countries intoxicated the Muslim masses instead of awakening them. It instigated them to deviate from the ground realities. Therefore Iqbal remained unsatisfied with that sort of literature.

He wrote in a letter to Akbar Allah Abadi on 11-6-1918:

"I believe that the Muslims literature in all the Muslim countries deserves reformation. Pessimistic literature never survived. For the survival of the nation its literature must be optimistic."(9)When the decline of a nation starts, its literature also begins tottering. Its writers draw the nation towards the abysm of decay instead of guiding it to come out of it. They inspire them towards reclusiveness, and even their weaknesses are shown as virtues.

Iqbal wrote in a letter to Sirajud Din Paul on 19th July, 1916;

"It is a matter of amazedness that all the poetry of divinity was created during the period of political decline and it was due as well. The thinking of the nation changes when it loses its energy as it diminished after the invasion of Tartars. Weakness becomes a beauty in their eyes and the reclusiveness as the cause of contentment. The nations cover their weariness, sloth and the defeat in the fight of survival under this (reclusiveness).The climax of the Indian Muslims literature ended on the threnodies of Lakhnao."(10)

Those writers who used their literature for the uplift of life had to face strict resistance from their contemporaries. It is said that the thought of literature for life was first evoked the progressive movement (Taraqi-Pasand Tehreek) but in fact it was first aroused by Sir Syed and his companions. Hali had to bear the spears of sarcasms from his contemporary poets. The writers and poets associated with this movement adopted various forms for the propagation of their thoughts.

One aspect is common between Iqbal and the socialist writers that both unlighted the thought of literature for life.Iqbal disapproved the Hafiz Sheerazi s' poetry as the lesson in the later s' poetry takes one away from the aim of life. Dr. Iqbal expressed his such a thoughts in his letter to Maha Raja Sir Kushan Parshad written on 13th April , 1916;

"I am recognizer of the poetry of Khawaja Hafiz. It is my belief that such a poet has never been born in Asia and will never bear, but the ecstasy created by reading his poetry fades the energies of life. I mused over the mind history of Muslims and Hindus and their present status

and I am sure that the healers of both the nations could not diagnose the actual diseases of their patients. I believe that their actual disease is the weakness of their life force and this weakness is the result of a specific literature which was created due to the misfortune of these nations. These nations look over the life with that spectrum of thought which has been weakened but with beautiful literary words seems firm and strong and now this existing situation demands the correction of this point of thought."(11)

Human being can reach to his actual destination by means of day to day creations. When Iqbal appraises the world with the Islamic point of view, he does not find any such nation including the Indian and Muslim Nations with the world. He says:

"As far as the cultural history of the Islamic Ummah is concerned, I am sure that with the exception of only Architecture, the Islamic Art (music, painting even poetry) is to be born yet. This the very Art which possess the aim of absorbing the divine qualities of Almighty in the human soul and from this the external creative intuition of (تخلقا" با خلاق الله،اجر غير ممنون) is yielded which ultimately enables the human being as the (Naib –e-illahi), "the Vice of Almighty Allah on the earth."(12)

The poet is saved from aberration when he has some purpose to reach a destination, which after all can be called as his aim. If it is for the betterment of his nation, all his works prove the cure of its ill. Those writers who wrote for the sake of Art and spent their lives in opposing the theory of literature for life actually they either could not face the circumstances or considered literature as the source of taste. The literature can be a tool of purification and beautification.

Salim Akhtar says about the purpose liking of Iqbal: "Iqbal was purpose liking poet, and like any purpose liking writer, he considers the literature as a source of achievement of purpose under an aim. Iqbal dreamt a society, he gave the lesson of ' Khudi' for the accomplishment of that.On the basis of Khudi he built the castle of his thoughts and constructed his thinkings and thought upon literature as the source of the realization of his dream. When he doesn't find even the shadow of his thoughts in the work of classical to contemporary writers, he rejects them all. The total rejection of poetic literature and asset of thought was for the reconstruction of new poetic tradition. Iqbal wanted to see literature for his new society, but the stimulus of his creativity was beyond the reach of his contemporaries. Therefore first the mistakes of language were pointed out but later on due his imposeness no one could reach to the heights of his Art."(13)

When the purpose is in view then the poets or writers suffer in a strange anxiousness in such a state they play the role of the healers of nation. When the artist has no purpose other than the service of that art and the same is to be spread to the others in this case such artist or writer cannot be called as well wisher of his nation.

When Almighty Allah demands from his servants they use this is from all the fields of life. This is to use the capabilities as well. In addition to the use of wealth, He (writes) spends his abilities in the service of creatures of Allah. Allah gifted Iqbal the abilities which he aptly used in the service of creatures of Allah. He once described his anxiousness in a letter to Syed Suleman Nadvi;

"*World is in a strange perplexity. The system of world demands reconstruction. In your opinion how can Islam in its modern shape prove helpful in the prevailing situation."(14)*

Those poets who take their nation away from these aims have been criticized badly by Iqbal in his prose and poetry. He never cares for any personality in this regards whether a great or small. This is also a quality ofan artist who has some aim that never deviates from his aim with the sarcasm of others. Some examples from the Iqbal s' poetry are given below:

عشق و مستی کا جنازہ ہے تخیل ان کا
ان کے اندیشہءتاریک میں قومون کے مزار

(Their opinions perish the love and enthusiasm, in their pessimist ideas there are the tombs of their nations.)

چشمِ آدم سے چھپاتے ہیں مقاماتِ بلند
کرتے ہیں روح کو خوابیدہ بدن کو بیدار

(They keep the high goals concealed from of the eyes of the human beings however put the spirit to sleep but keep the body active.

ہند کے شاعر و صورت گرو افسانہ نویس
آہ بیچاروں کے اعصاب پہ عورت ہے سوار (15)

(Alas! The senses of all the Indian poets , sculptors and storywriters are obsessed by women.)

In short form the analysis of Iqbals' letters,it is clear that Iqbal is in favor of aim in poetry and literature and he refused to be poet like those who write without any aim in view. This is the very quality of a great person that his no action is for naughtiness or humor but in all his sayings and deeds, there exists some well-wishing for human being.

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MODULE INTERVENTION: EFFECT ON PROBLEM SOLVING SKILLS AMONG TECHNICAL STUDENTS

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Abstract: *Technology engineering education in Malaysia is constantly changes because of development progress in industry and technology demands. Therefore a soft skill such as problem-solving skills is crucial for graduates in technical and technology engineering education field. Various initiatives have been implemented in ensuring that they are capable to enhance students' problem-solving skills. These research papers discuss the development of a module to support students' problem-solving skills and also the effectiveness of module implementation. The investigation was based on the previous issues from problem-solving in final year project, written feedback from industries and also by observation during the class. Furthermore, the underpinned theories used for the development module were Theory Inventive Problem Solving and Experiential Learning Theory. An experiment was carried out from one of Majlis Amanah Rakyat Higher Technical Institution in Malaysia. Interventions of the module were implemented during a semester academic week. Two groups were formed: Treatment and Control group. Data were taken before and after module intervention (pre-test and post-test). It represents technical students in the area of diploma engineering technology education. The data was analyzed quantitatively and the results show students' lack of exposure in problem-solving techniques. It was discovered by many of the students' tend to solve the problem by intuitive rather than a systematic approach.*

Keywords: *Final Year Project, Technical Institution, Problem Solving Approach, Engineering Technology*

Introduction

Technical and Vocational education introduced in Malaysia education system since 1987 (Rashid & Education, 2011). It started in 1906 when technical school was opened to give technical training for technicians in the government sector and thus give an impact on vocational development. From that, Malaysia the government has determined vocational education is one of the sectors to drive an economy of Malaysia country by providing skilled manpower to fulfill industries demand (Azman, 2015). Vocational education is further enhanced by the establishment of a training-based institute and is known as Technical and Vocational Education and Training (TVET). One of MARA TVET institution that provides an employability skill required by industries was Kolej Kemahiran Tinggi MARA (KKTM).

Literature Review

The observation has been made in TVET institution and also a response from industry, one of the reasons or issues students and graduates that not meet the criteria as a potential worker was they are lack of problem-solving skills (Seman, Rahman, & Ahmad, 2014). Various research studies had been documented by a researcher that mentioned graduates do not meet industries need. Malaysian students still not achieve the criteria of good workers (MEF 2011). Therefore, the development of human capital in Malaysia needs a shifting paradigm which focuses on more producing a quality of graduates so that they can become competitive workers. This is also supported by Jawhara (1995), students need to be exposed by exploring the problem frequently. Apart from that, they can gain experiences in solving a problem by solving open-ended problem-solving activities. Indirectly it can be used to encourage students to become creative and innovative. Therefore, some changes in education should be made to overcome the issues, especially in the teaching and learning system. The new approach needs to be considered such as problem-solving skill, the systematic method, optimizing students experience to reduce conflict, open-ended question and solution so that students can develop their skills as well as become an independent learner.

Research Theories

The underpinning learning theories used in this study were the Experiential Learning Theory (ELT) and the Theory of Inventive Problem Solving (TRIZ). TRIZ was developed by the Russian scientist Genrich Altshuller (1926-1998) in between 1960 and 1980 and this was contrasted with "trial and error" method. TRIZ is a systematic analysis by providing a guideline of the system that can be improved. It provides a systematic procedure for problem solvers to produce good solutions by giving value added (Mann, 2002). The principle used in TRIZ for problem-solving is illustrated in Figure 1.

The first step was a specific problem. Here the problems need to be defined accurately. Next was the TRIZ Generic Problem, and in this step, the type of problem needs to be classified accordingly. TRIZ has a wide array of tools for inventive problem solving by classifying the problem type before select the tools accordingly. Next, apply TRIZ tools to generate potential solutions of the problem. Finally, evaluate the soundness of the new and specific solution. Each stage can be cycled through at different times during the problem-solving process.

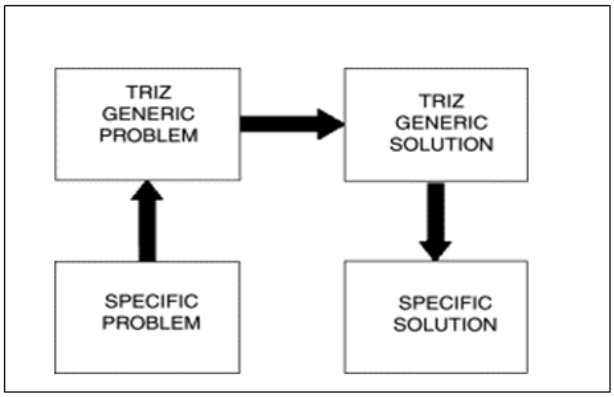

Figure 1: Principle of TRIZ

Experiential education considered as education with direct participation in life (Mi Dahlgaard-Park, 2006). This supported by Anderson et al. (2000) which considered experience is an element of the educational process (Andresen, Boud, & Cohen, 2000). Furthermore, Kolb's defines the Experiential Learning Theory (ELT) as a process whereby knowledge is created through the transformation of experience. Knowledge comes from the combination of grasping and transforming experience (Yardley, Teunissen, & Dornan, 2012). Experiential learning provides students the opportunity to directly apply the information they possess in order to build self-efficacy and learn from the experiential undertakings. Its focus more on the experiential learning process rather than on fixed learning traits (Turesky & Gallagher, 2011), providing for an acknowledgment and incorporation of personal change and development in the model (Healey & Jenkins, 2000).

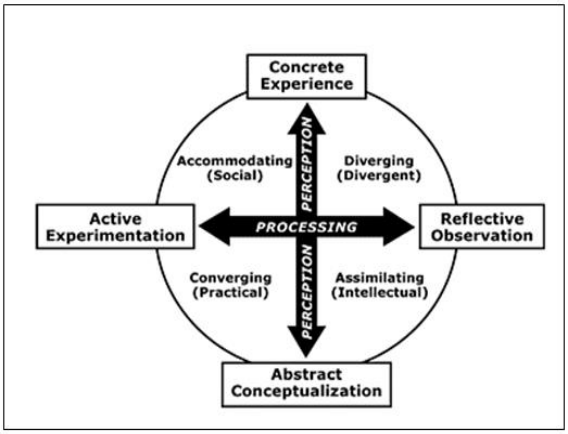

Figure 2: Principle of Kolb Experiential Learning Theory

Kolb ELT stressed learner needs to pass through all an experiential learning cycle (ELC) which are concrete experience (CE), reflective observation (RO), abstract conceptualization (AC), and active experimentation (AE). By attempting all the cycles it can construct individual become effective learners. Research had been identifying that Experiential Learning Cycle is more suitable for engineering education (Abdulwahed & Nagy, 2009). This supported by Stice (1987), that used ELC to improve undergraduate learning process in their class (Stice,1987).

The Experiential Learning Cycle (ELC) as shown in Figure 2 begins with the concrete experience that is fundamental for observations and reflections. Then it leads to abstract conceptualization which can create new ideas and thinking. Next, thinking is applied towards active experimentation into new learning in creating new experiences. A learner was allowed to begin at any stage of the cycle and for the stages to be repetitive. Although Kolb's Experiential Learning Cycles has similarities with other active learning approaches but the main differences compared to other active learning approaches are that Kolb's ELC considers experience as the foundation of learning (Conole, Dyke, Oliver, & Seale, 2004).Therefore, this difference is also the main justification and reason for using it as a research theory to design a module.

Methodology

The research method consists of 3 phases as shown in Figure 3. Phase 1 as a preliminary study to investigate the student difficulties. Then, the findings in the preliminary study were considered to develop a module in the following phase. Next, a complete designed module in Phase 2 was used for implement an intervention class and module. Lastly, Phase 3 for result analysis and also findings from the module intervention.

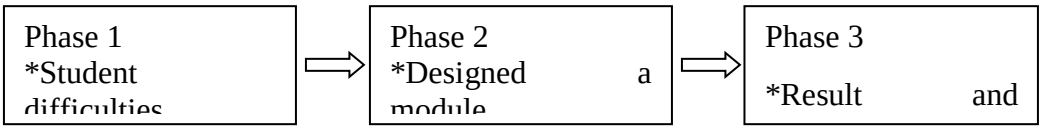

Figure 3: Research Phases

Phase 1

The learning sequence was designed to lead students through the full cycle of experiential learning cycle (ELC) and also Theory of Inventive Problem Solving (TRIZ) step as shown in Figure 4. Each question was designed to suit and covered the cycle for both theories. The stage of ELC was incorporated into TRIZ steps approach and it was starting from cycle 1. Therefore instructors should be able to foster more comprehensive learning that can be gained from a single perspective (Svinicki & Dixon, 1987).

THEORIES	**CYCLES**			
	1	**2**	**3**	**4**
ELC	Concrete Experience	Reflective Observation	Abstract Conceptualization	Active Experimentation
	↕	↕	↕	↕
TRIZ	Specific Problem	Generic Problem	Generic Solution	Specific Solution
No of Question	**Question 1**	**Question 2**	**Question 3**	**Question 4**

Figure 4 A designed learning sequence mapped

This problem-solving test questionnaire was adapted from the TRIZ Innovation Situation Questionnaires (2010). However, the modification has been made from the original questionnaires when there were not sufficient questions on a particular problem-solving. Question 1 was covered the first cycle in ELC and TRIZ to investigate students' weaknesses in concrete experience and specific problem. Follow by Question 2 in cycle 2 to look into students' skills by generating a similar problem and reflecting their observation. Then, in cycle 3 students need to generate the solution by understanding the concept before they produce a specific solution and experiment in cycle 4. Four questions were tested into 44 students to investigate their current problem-solving skills. Then, the results findings from this study were used as a guide to developing a real module.

Table 1: Summary Result of Test

Item	*f*	%
Cycle 1		
Question 1	29	65.90
Cycle 2		
Question 2	25	56.82
Cycle 3		
Question 3	21	47.72
Cycle 4		
Question 4	3	6.82

Based on the result in Table 1, it can be concluded that students have fewer difficulties in defining the problem where 65.90% considered can define the problem in cycle 1. Then followed by 56.82% can analyze the problem in cycle 2. However, findings revealed most of the students' lack of knowledge and skills to generate and apply the model of the solution to overcome the solution. This is because less number of students can be answered correctly during these stages. The result shows the difficulties happened on solution generation where only 47.72% contributed to the result in cycle 3. Lastly, in cycle 4 only 6.82% can apply a sound and good solution. Thus, it can be concluded that the issue of lack of basic problem-solving knowledge and incompetence in skills occurs among the local technical students. Therefore to support the difficulties mentioned, the questions and the exercises attempt should be addressed to be included in the module designed.

Phase 2

Based on the findings in phase 1, then the module was developed. The design module consists of the scheme of work, lesson plan, intervention slide, exercise sheet, problem-solving test and also assessment rubric. The scheme of work has been used as a view or guide in the implementation of the module for a whole lesson. Meanwhile, lesson plan contains a detail instruction of the lesson for guiding achieving of learning outcome in each class. The intervention slide was used to facilitate the process of delivering information during intervention class and students need to attempt the exercises to support their understanding. Furthermore, a problem solving test were referred as an assessment instrument used in this study. A semester prior before research began an instrument was tested onto 70 students with Cronbach Alpha 0.71. This value shows the inferences made from the result of an alpha above 0.7 is normally considered to indicate a reliable set of items and indicates acceptable reliability. (Johnson and Christensen, 2008: Pallant, 2007).

A problem-solving test questionnaires consist of 12 questions was adapted from the TRIZ Innovation Situation Questionnaires (2010) with some modifications to suit the research study objectives and the content was validated by experts in the field. Each cycle was catered by 3 questions and each question has their own marks. Table 2 shows the mapping of question number in problem-solving test questionnaires into four cycles of being tested. Lastly, an assessment rubric was used to assess students answer in problem-solving test.

Table 2: Question Number and Cycle Tested

Question No	Cycle Tested
1	CYCLE 1
2	
3	
4	CYCLE 2
5	
6	
7	CYCLE 3
8	
9	
10	CYCLE 4
11	
12	

There are five scales (very good, good, average, poor and very poor) been used to shows students achievement based on their total marks. Next, a second-year students in semester four were chosen as samples in this study. They are from Industrial Mechatronics Programme and also Manufacturing Programme. Justifications in selecting both these programmes are because they have the similarity for entry requirements as well as the syllabus. The students also had been exposed to project work in semester 3. Then, students were divided into two groups: control and treatment group. Pre-test was done for both groups in week 9 of the academic semester. An intervention class was implemented during week 12 to 16 of an academic semester with 6 class session for the treatment group only. Whereby control group was remain with the traditional method. Then in week 17, a post-test was done for both groups again.

Phase 3

The analysis result had been made by comparing marks between each cycle to show students problem-solving achievement. The score obtains from the pre and post test were analyzed quantitatively. Figure 5 shows the result for both groups in the pre-test. Group 1 represent the control group with 33 students were involved, whereby group 2 represent treatment group with 35 students. The finding shows in Figure 5, both group almost had the same level of problem-solving skills based on their total marks which are poor and moderate level in their pre-test. Meanwhile, the result in Figure 6 shows a result of total marks for post-test. Result findings show an achievement for group 1 still remained since they are not exposed to module intervention. However the group 2 shows some improvement in their total marks.with the increment number of students in moderate and good level.

Figure 5: Total marks in pre-test

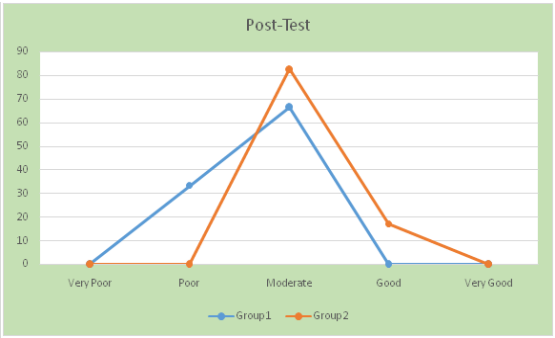

Figure 6: Total marks in post-test

Furthermore, the comparison in the mean point for both group in both test was made as shown in Figure 7. From the paired sample T-test, initially, both groups were considered having an equal level of their problem-solving skills. It clearly can be seen when the mean score for group 1 was 22.0 and group 2 was 22.69. A mean point for group 1 is not many changes in post-test with mean score 22.15, whereby a mean score for group 2 was increase into 26.20. It significantly changes the level of student problem-solving skills after they exposed to the designed module.

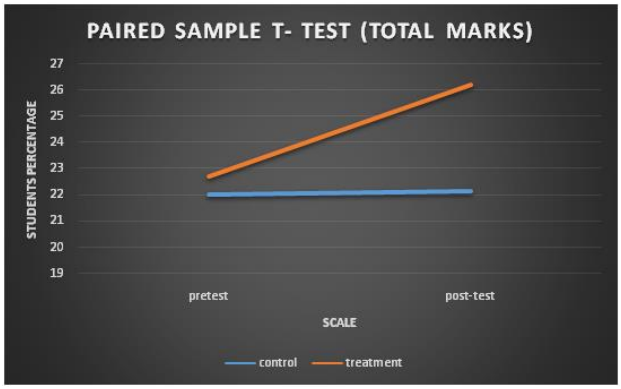

Figure 7: Mean score for pre and post-test

Conclusion

Some modifications and improvement need to be considered while designing the module. By increasing the exercise and studying the various aspects of exercise activity also can support the student problem-solving skills. Also, the module can be proposed to be embedded into a part of

the course syllabus so that it can be more effective and also can enhance the students' problem-solving skills.

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STRATEGIES TO EMPOWER THE ECONOMIC GROWTH BY REDUCING THE SANGLARITIS MINDSET OF STUDENT

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Abstract: *The problem of unemployment and poverty is a classic problem facing developing countries including Indonesia. Every period of national leadership in Indonesia is always faced with both issues. Until the turn of the current national leadership, the problems of unemployment and poverty continue to recur. Many economists of this nation put forward alternative concepts to solve the problem. One alternative to solving the problems of unemployment and poverty is to empower people through entrepreneurship. Promoting entrepreneurship culture in society will be able to help open employment, so that with the absorption of labor will reduce poverty. Therefore, it takes the active role of society to increase economic independence with entrepreneurship. Also with the impact of globalization that brings together the ASEAN Economic Community (AEC) that could have a negative impact rather than a positive impact. Wuryandani (2014) reveals some of the fundamental issues that Indonesia still faces for facing the 2015 MEA in terms of unemployment, the labor force, and entrepreneurship. So the situation makes Indonesia doubt its readiness to face the ASEAN Economic Community. The impact can be overcome if the government and society, especially students have the motivation to be able to create jobs rather than looking for work.*

Keywords: *Entrepreneurs, Technopreneur, Unemployement, Poverty, Sanglaritis*

Introduction

The economic development of a country can be seen from several economic indicators. One of them is the unemployment rate. Based on the unemployment rate can be seen the condition of a country, whether the economy is growing or slow and or even experiencing setbacks. In addition to the unemployment rate, it can be seen also the inequality or inequality of income distribution received by a society of that country. Unemployment can occur as a result of the high rate of change in the workforce which is not balanced by the existence of sufficiently large employment opportunities and the absorption of labor that tends to be a small percentage. This is due to the low growth rate of job creation to accommodate workers who are ready to work (Alghofari, 2011).

In 1988, Todaro revealed that economic development is a multidimensional process involving major changes in social structure, public attitudes, and national institutions, as well as accelerating economic growth, reducing inequality and eradicating absolute poverty (Alghofari, 2011).

The problem of unemployment and poverty is a classic problem that plagues developing countries including Indonesia. Every period of national leadership in Indonesia is always faced with these two issues. Until the current change of national leadership, the problem of unemployment and poverty continues to recur. Many of the nation's economic experts propose various alternative concepts to overcome this problem.

One alternative to solving problems of unemployment and poverty is to empower people through entrepreneurship. Promoting a culture of entrepreneurship in the community will be able to help open jobs, so that the absorption of labor will reduce poverty. Therefore, the active role of the community is needed to increase economic independence by entrepreneurship (Tjahjono & Ardi, 2008).

In Indonesia, until the end of 2005, an estimated 12,000,000 people were displaced, up almost 11 percent from the previous year. This amount is 11.3 percent of the 2005 workforce of 106,888,000. of the total 12,000,000 unemployment, around 10 percent or almost 1,000,000 are intellectuals who hold higher education degrees (Kasmir, 2006).

From the results of the study, students find it difficult to want and start an entrepreneur because they are not taught and stimulated to try on their own. This is also influenced by the community and family who have always wanted their children to become payday people, aka employees. The mindset that is manifested in the aspirations to become an employee has actually happened in various parts of the world since decades ago. A well-known author of a book on motivation, namely Max Gunther, once criticized the education system in the United States in the 70s, which he said would only give birth to "Sanglaritis" graduates, which meant they had a mental labor force, preferring public servants or private employees. They are less able and willing to create their own jobs. (Kasmir, 2006).

Similar problems can still be encountered in 2018, of course this condition is very alarming added since a decade ago, ASEAN leaders agreed to form a single market in the Southeast Asia region. This is done so that ASEAN's competitiveness increases and attracts foreign investment and can compete with China and India. The establishment of a single market termed the ASEAN Economic Community (MEA) will enable one country to sell goods and services easily to other countries throughout Southeast Asia so that competition will be even more stringent (Wuryandani, 2014). Of course this situation can increase the number of unemployed if the number of jobs is not increased and there is a factor in the number of workforce that will increase due to the MEA.

Wuryandani (2014) revealed several fundamental issues that Indonesia still faces in order to face the 2015 AEC related to unemployment, the workforce, and entrepreneurship. First, there is still disguised unemployment. Second, the low number of new entrepreneurs to accelerate the expansion of employment opportunities. Third, Indonesian workers are dominated by uneducated workers so that their productivity is low. Fourth, the increasing number of educated unemployed workers, due to discrepancies between college graduates and labor market needs. Fifth, the imbalance of labor productivity between economic sectors.

For this reason, the government needs an appropriate regulatory strategy idea related to overcoming the problem of unemployment and poverty by growing the number of entrepreneurship coupled with the presence of AEC which indirectly forces the Indonesian people to expand employment so that the number of unemployed does not get worse. This scientific paper is here to give ideas to overcome problems related to unemployment, poverty, and the mindset of entrepreneurship (entrepreneurship) in educated and uneducated workforce.

Unemployment and Poverty

Job opportunities are the number of people who can be accommodated to work for a company or an agency. "Job opportunities will accommodate all available labor if the available employment is sufficient or balanced with the large number of available labor," (Tambunan, 2001: 60). The factors that influence the expansion of employment opportunities include: the development of the population and labor force, economic growth and policies regarding the expansion of employment opportunities themselves. Labor is one of the most important factors of production besides natural resources, capital and technology. Labor has a very important role in development, namely as a development agent. Labor issues are problems that are so real and close to our environment. In fact, labor problems can cause new problems in the economic and non-economic fields. High unemployment causes low income which in turn triggers poverty. (Yacoub, 2013).

Efforts to reduce unemployment and poverty are equally important. According to the theory, if people are not unemployed, they have jobs and income that are expected to be used to fulfill their daily needs. If life needs are met, then there will be no poverty.

Definition of unemployment is a population who does not work but is looking for work or is preparing a business or a resident who does not look for work because he feels it is impossible to get a job or who already has a job but has not started work (BPS: 2010). So that it can be said that with a low unemployment rate (high employment opportunities) the poverty rate is also low.

In general, the definition of labor is related to humans who are able to work to produce goods or services and have economic value that can be useful for the needs of the community. Physically the ability to work is measured by age. People in working age are considered capable of working. According to Law No. 13 of 2003 concerning Labor, the workforce is anyone who is capable of doing work to produce goods and services, both to meet their own needs and for the community. In Indonesia, since 1998 BPS has used the age of 15 years and above as a working age population group. (Yacoub, 2013).

According to Sumarsono (2009: 2-3): "Manpower or Human Resources (HR) involves humans who are able to work to provide services or business ventures. Being able to work means being able to carry out activities that have economic value, namely that these activities produce goods and services to meet people's needs. Physically the ability to work is measured by age. In other words, people who are in working age are considered capable of working. The population group in working age is called labor or manpower. Briefly, labor is defined as a working age population. Manpower or manpower consists of the workforce and not the workforce. Labor force or labor force consists of (1) working groups, and (2) unemployed groups and looking for work ".

The unemployment rate according to (Sumarsono, 2009.6), "is the percentage of the number of unemployed people in the workforce. Residents who are looking for work but not having jobs are called unemployed ". Definition of unemployment is a population who does not work but is looking for work or is preparing a business or a resident who does not look for work because he feels impossible to get a job or who already has a job but has not started work (BPS, 2010). Pada 2017 sebanyak 128,06 juta penduduk Indonesia adalah angkatan kerja, dengan

penduduk yang bekerja sebanyak 121.02 juta orang (BPS,2017). Dari keterangan tersebut bisa cari tahu berapa jumlah pengangguran di Indonesia pada 2017.

The Concept of the ASEAN Economic Community and The Effect to Indonesia

The concept of the ASEAN Economic Community is in line with the dynamics of relations between nations in ASEAN which recognize the importance of the integration of countries in Southeast Asia. At an informal meeting the Heads of ASEAN Countries in Kuala Lumpur on 15 December 1997 agreed on ASEAN Vision 2020 which was then followed up with a meeting in Hanoi which resulted in the Hanoi Plan of Action (HPA). Vision 2020 including the HPA includes, among others: the conditions to be realized in several fields, such as outward orientation, peaceful coexistence and creating international peace.

Some of the agenda of activities that will be carried out to realize Vision 2020 is to improve the quality of human, economic, environmental, social, technological, intellectual property, security and peace, as well as tourists through a series of joint actions in the form of good and mutually beneficial relationships among ASEAN member countries.

Furthermore, at the 9th ASEAN Summit in Bali in 2003 the Bali Concord II was produced which agreed to establish an ASEAN Community to strengthen ASEAN integration. There are three communities in the ASEAN Community that are tailored to the three pillars in ASEAN Vision 2020, namely in the field of political security (ASEAN Political Security Community), economics (ASEAN Economic Community), and social culture (ASEAN Socio-Culture Community). MEA is the ultimate goal of economic integration as stated in ASEAN Vision 2020 is: "To create a stable, prosperous and highly competitive ASEAN economic goods, services, investment, economic skills and reduced poverty labor skills and socio-economic disparities in year 2020." To help achieve ASEAN economic integration through the AEC, AEC Blueprint was created which contained four main pillars namely (1) ASEAN as a single market and based on single production supported by elements of free flow of goods, services, investment, educated labor and more capital flows free; (2) ASEAN as a region with high economic competitiveness, with elements of competition regulations, consumer protection, intellectual property rights, infrastructure development, taxation, and e-commerce; (3) ASEAN as a region with equitable economic development with elements of small and medium enterprises development, and ASEAN integration initiatives for the countries of Cambodia, Myanmar, Laos and Vietnam; and (4) ASEAN as a region that is fully integrated with the global economy with elements of a coherent approach to economic relations outside the region, and increasing participation in global production networks.

With the enactment of the 2015 MEA, it means that ASEAN countries agree on the realization of regional economic integration whose application refers to the ASEAN Economic Community (AEC) Blueprint. AEC Blueprint is a guideline for ASEAN Member States in realizing the 2015 AEC (Wangke, 2014).

In accordance with the cooperation in the economic field regulated in the ASEAN Community, later the goods, services and investment markets can freely move without geographical restrictions. Especially for workers, the 2015 AEC will definitely have a direct impact on Indonesian employment.

Theoretically, liberalization in the goods, services, capital and labor market will increase labor productivity, because it will create conditions that encourage companies to allocate resources more efficiently. (Sugiyono, 2010)

The unlimited mobility of the workforce will certainly make employment opportunities for the workforce increasingly broad with a wide area coverage. Workers can freely choose the type of work according to what they want and the company can also choose the workforce that matches the specifications.

However, this should not make the Indonesian people enjoy it first because precisely when the goods and services market begins without the readiness of qualified human resources we will only become successful viewers in our own country. As is currently the case, the large number of migrant workers from Indonesia tends to be dominated by lows killed workers. 9 2015 MEA also requires Indonesian workers to have more than average expertise in order to compete with foreign workers from neighboring countries. Therefore, there needs to be an improvement in the quality of Indonesian labor (Pratiwi, Nind, & Mahmudah, 2013).

It can be concluded that the concept of the ASEAN Economic Community (MEA) can improve the quality of human, economic, environmental, social, technological, intellectual property, security and peace, as well as tourists through a series of joint actions in the form of good and mutually beneficial relations among ASEAN member countries. But with the lack of quality resources in Indonesia, the high unemployment rate in Indonesia and the lack of adequate employment opportunities for labor can have a detrimental effect, namely the increasing number of unemployed people due to the ASEAN Economic Community. Therefore adding the number of jobs by fostering entrepreneurial spirit in the community can overcome the problem of lack of employment and poverty.

Concept of Entrepreneurship and Technopreneurship

Entrepreneurs come from French which means contractor. The origin of the word is entrepreneurship which means enterprising, willing to try, brave, adventurous, and entrepreneur, which means undertake. The term entrepreneur began to be used in English since 1878, and was understood as a contractor acting as intermediate between capital and labor. In Indonesia alone, entrepreneurs are translated as entrepreneurs, entrepreneurs, and entrepreneurs. In the government environment, the term entrepreneurship is used. (Ciputra, 2008).

In simple terms the meaning of entrepreneurship (entrepreneur) is a person who has a courageous courage in taking a risk to open a business on various occasions. Having the courage to take risks means being mentally independent and daring to start a business. (Kasmir, 2006).

Peter F. Drucker said that entrepreneurship is the ability to create something new and different. (Kasmir, 2006). This understanding implies that an entrepreneur (entrepreneur) is a person who has the ability to create something new, or create something different than ever before. Meanwhile, Zimmerer interpreted entrepreneurship as a process of applying creativity and innovation in solving problems and finding opportunities to improve life (business). (Kasmir, 2006).

This opinion is not much different from the opinion above. That is, to create something new or something innovation requires a high creativity and soul innovator. Someone who has the spirit of creativity and innovators certainly thinks to look for or create new opportunities to be better than the previous ones.

By having this ability, one can implement that understanding into real life so that it can increase the number of new businesses that can contribute both to increasing the number of jobs and reducing poverty.

The definition of Technopreneurship itself according to Tata Sutabri is the process and formation of a new business that involves technology as its basis, with the hope that the creation of appropriate strategies and innovations can later put technology as one of the factors for national economic development.

technopreneurship. wordpress.com stating that technopreneurship is still part of entrepreneurship. Technopreneurship is involved in sending an innovative high-tech product or making use of high technology in an innovative way to send its products to consumers or both. For example drug companies. The concept of technopreneurship as revealed above basically integrates technology with entrepreneurial skills (entrepreneurship skills).

In the concept of technopreneurship the basis for developing entrepreneurship is based on the invention and innovation in the field of technology. Technology that is understood in this context is not just technology in the form of high tech, but of course it does not always have to be technical. Technology is only defined as the application of knowledge to people's work (human work). That way, accounting, order quantity economics, oral and online marketing, and mentoring are well formulated as well as technology. (Sudarsih, 2013).

With the influence of globalization, of course makes the development of technology very rapidly. Therefore the community must maximize the use of technology so that it is not left behind by the ever-expanding era. With the continued development of technology, it will certainly make it easier for humans to carry out various activities, one of which is to use technology in entrepreneurship.

Analysis of Employment in Indonesia and Community Readiness for Facing AEC

Unemployment in Indonesia is a problem that continues to swell. Before the 1997 economic crisis, the unemployment rate in Indonesia was generally below 5 percent and in 1997 it was 4.68 percent. The unemployment rate of 4.68 percent is still unemployment at a reasonable scale. In developed countries, the unemployment rate usually ranges from 2-3 percent, this is called the natural unemployment rate. The natural unemployment rate is a natural level of unemployment that cannot be eliminated. This means that if the highest unemployment rate is 2-3 percent, it means that the economy is in full employment conditions (Sadono Sukirno, 2008). It can be concluded by adding the number of jobs by establishing the number of entrepreneurs will reduce the number of unemployed so that the problem of unemployment and poverty can be overcome. In 2015 business people will be faced with the existence of the ASEAN Economic Community (AEC) or often known as the ASEAN Economic Community (MEA). MEA itself was formed with the aim of encouraging the economic growth of a country, especially in the Southeast Asian country.

The increase in the new workforce that is greater than the available employment continues to show a growing gap. 19 This condition is getting bigger after the economic crisis. With the economic crisis not only did the gap between the increase in the new workforce and the provision of low employment continue to deepen, but also the termination of employment (PHK). This causes the unemployment rate in Indonesia to continue to increase from year to year. (Alghofari, 2010).

At a meeting of ASEAN economic ministers held in August 2006 in Kuala Lumpur, Malaysia stated that it agreed to develop the ASEAN Economic Community Blueprint which was a guide from ASEAN. AEC Blueprint is a guide used by ASEAN countries in order to achieve the 2015 AEC, where all countries joined in ASEAN have an obligation to implement

commitments that exist in the Blueprint. Where AEC Blueprint contains four pillars, namely: ASEAN as a single market, ASEAN as a region with high competitiveness, ASEAN as a region with equitable economic development with the development of small and medium enterprises, and the last is ASEAN as a fully integrated region with the global economy through coherent elements in economic relations outside the region and increasing participation in global production.

Therefore the government preparations to face the 2015 AEC must synergize among stakeholders, entrepreneurs and scholars, especially in the scientific field who are more focused on dealing with internal problems that are often needed in the industrial world, especially in the field of industrial engineering. The majority of small and medium industries (IKM) in the Indonesian community still use traditional systems of business, meaning that business people have not paid too much attention to the level of efficiency and effectiveness of their business. This is one of them will be a threat to Indonesia in its efforts to compete in the ASEAN economic community, so that competition between business actors will be minimal creativity and innovation. (Anis & Widiasari, 2015)

So the government and the community must increase preparation as an effort to face the MEA so that Indonesia does not lose competition so the number of unemployed people does not increase.

Analysis of the Motivation of Students in Indonesia to Create a Jobs (Entrepreneurship)

As the nation's successor agents students are at the forefront of advancing the country because students are an iron stock, agent of change, agent of social control, and moral force. The role of students is very important for the progress of the nation. Kasmir (2006) revealed the results of interviews and questionnaires with 500 students throughout 2005 in six universities (PT) in Jakarta, each representing lower class, middle class and upper class, showing quite worrying results about motivation for entrepreneurship among students . Questions asked to students are "What will they do after completing their education or after obtaining a bachelor's degree, finding employment (becoming an employee), becoming an entrepreneur, or becoming an employee while entrepreneurship? Most of the 76 percent said they would apply for jobs or in other words become employees (employees). Then, only about 4% answered that they wanted to become entrepreneurs.

This means that the orientation of most students after graduation is only to find work, not to create jobs. Apparently these ideals have been going on for a long time, especially in Indonesia for various reasons. So, it is not surprising that every year the number of unemployed people continues to increase as long as there are no people or students who create new jobs and in the meantime employment is narrower due to the increasing number of labor force and not accompanied by the increase in work opportunities.

The mindset that is realized in the aspirations to become an employee has actually happened in various parts of the world since decades ago. A well-known writer, namely Max Gunther, once criticized the education system in the United States in the 70s, which he said would only give birth to graduates of "sanglarits" which meant they had mental labor, namely wanting to become civil servants or private employees

In Indonesia until the end of 2005 an estimated 12,000,000 people were unemployed, up almost 11 percent from the previous year. This amount is 11.3 percent of the 2005 workforce of 106,888,000 people. Of the total 12,000,000 unemployed, around 10 percent or nearly 1,000,000

are intellectuals who hold college education degrees. Then the question is, who is wrong, students, parents, or the government. The answer certainly depends on the angle of view where we look. Each has its own role.

From the results of research, students find it difficult to want and start an entrepreneur because they do not have the knowledge and desire to start a business. This is also influenced by the cultural environment of the people and families who have always wanted their children to become payers (employees). On the other hand, most parents do not have the experience and knowledge to try. Therefore, they tend to encourage their children to find work or become employees. Parents also feel more proud, even some feel free, if their children who have finished college can become employees. And the no less important factor is there is no or difficulty in having capital for entrepreneurship. Meanwhile, the government is not very responsive to change people's mindsets. (Kasmir, 2006)

To change the mindset and mentality and motivation that is so embedded in every Indonesian person is not an easy job. For this reason, it is necessary to create a climate that can change the mindset both mentally and the motivation of parents, lecturers, and students so that their children will be accustomed to creating jobs later than looking for work.

Conclusion

In the process of economic development, the problems of unemployment and poverty are caused by the imbalance in the growth of the number of the workforce with an increase in the number of jobs. The large number of unemployed intellectuals is a very unfortunate and worrying thing caused by frictional and structural unemployment.

As well as the rapid influence of globalization and the policies of the ASEAN Economic Community (MEA) also requires the community to be more advanced and ready to compete in this global economy. The presence of the MEA provides positive and negative influences depending on where people can take advantage of the opportunities available. If the community cannot develop for the better and there is no increase in the number of jobs it will result in problems of unemployment and poverty will also improve. Therefore the community must have motivation and innovation to advance. So the government is encouraged to emphasize the growth in the number of entrepreneurial growth in Indonesia by instilling the mindset for entrepreneurship and providing assistance as a form of business capital for the community.

Society also must balance the development of the times by utilizing the Internet of Things (IoT) as the key to progress so that the work will be more effective and efficient in carrying out productivity in a business. With the increasing number of entrepreneurs and technopreneur, the problem of unemployment and poverty in Indonesia in the era of the ASEAN Economic Community will be overcome.

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INSPECTING THE CUSTOMER SATISFACTION TOWARDS SERVICE QUALITY AT MALAYSIAN PUBLIC HOSPITALS UTILIZING SERVQUAL GAP ANALYSIS

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Abstract: *The healthcare industry is among the most dynamic and rapidly growing service industries in the world economy. In recent years, the government has taken the initiative to increase funding for the healthcare sector to compensate for a large ageing demographic in Malaysia. However, continual complaints from customers regarding their dissatisfactions towards Malaysian public hospitals services become a huge challenge to the healthcare service providers. Therefore, the main objective of this research was to measure the customer satisfaction towards service quality at Malaysian public hospitals. This research involved the customers who experienced the service delivery at Malaysian public hospitals. The self-administered questionnaire was used as a research instrument. The quota sampling technique was employed to gather the data. Data gathered were analyzed using SERVQUAL gap analysis. The results revealed that the customer satisfaction towards service quality offered by Malaysian public hospitals was only at moderate level. Based on the SERVQUAL gap analysis results, the empathy dimension showed the lowest mean of satisfaction. This indicates service quality offered by Malaysian public hospitals still needs improvement in terms of individualized attention to customers, especially to customers with special needs. This research benefits the managerial in healthcare industry to deliver excellent service experience to customers by considering the relevant indicators of service evaluation.*

Keywords*: Customer Satisfaction, SERVQUAL, Gap Analysis, Healthcare Industry*

Introduction

The growth of healthcare service industry in Malaysia is proven by the increasing number of public and private healthcare organizations. In 2017, statistics revealed by Ministry of Health Malaysia (MOH) indicated that there were 139 registered public hospitals and 216 registered private hospitals in Malaysia. The public hospitals are accessible to all legal residents of Malaysia, funded by the government, and provide low-cost universal and comprehensive

services. Malaysian government is always committed to strengthen its healthcare organizations to ensure a high quality and safe services delivery to the customers (Healy et al., 2013). For instance, MOH has spent 4.8 percent of GDP to improve the services rendered by public hospitals (ETP, 2016). Under the framework of the New Malaysia Economic Model, healthcare service industry has been targeted to serve as the engine of growth to propel and sustain the economy. This scenario creates a huge challenge among Malaysian healthcare service providers, especially the public hospital, to deliver a world-class service experience to customers.

In recent years, the government has taken the initiative to increase funding for the healthcare sector to compensate for a large ageing demographic in Malaysia. However, the issue regarding customer satisfaction towards the quality of services offered by Malaysian public hospitals is still being debated among practitioners and academicians. For instance, a study conducted by Halizah (2012) revealed that the patients are still dissatisfied with physical aspect of service offered at Malaysian healthcare service. In addition, Maisarah and Nasbi (2009) concluded that the Malaysian healthcare service providers still failed to deliver effective services to the customers. Therefore, there is a need to conduct a study to inspect customer satisfaction towards service quality at Malaysian public hospitals. 22 SERVQUAL indicators that covered five service dimensions, namely tangibles, reliability, responsiveness, assurance and empathy were utilized to measure the customer satisfaction offered by Malaysian public hospital. Interestingly, this study also measured the customer satisfaction insights of each service indicators using gap analysis.

Literature Review

Overview Customer Satisfaction Research in Healthcare Service

The challenge for Malaysian government is to strengthen its healthcare organizations, public and private, in order to ensure high quality and safe services are provided to the customers (Healy et al., 2013). Hazilah (2012) discovered three factors of patient satisfaction towards public healthcare service delivery in Malaysia, namely clinical dimension of service, physical dimension of service, and additional facilities. This study revealed that the patients are satisfied with the clinical aspect of treatment rather than the physical aspect of service. As suggested by the quality management practices, the healthcare service industry should focuses on improving and maintaining the quality of care to the customers. Maisarah and Nasbi (2009) have conducted a study in one district hospital in Malaysia to assess five key elements in providing quality services: leadership; policies, plans and procedures; training and orientation; monitoring and supervision; and service performance. The finding of this study indicated that the healthcare service providers still failed to deliver effective services to the customers. The most recent study conducted by Kashif et al. (2015) introduced and validated the customer experience quality (EXQ) scale in Malaysian private healthcare setting. EXQ scale links the customer experiences to the marketing outcomes such as satisfaction, loyalty and word of mouth.

Theoretical Perceptive of Customer Satisfaction

Expectancy-Disconfirmation Paradigm (EDP) is the most widely applied theory to assess consumer satisfaction and dissatisfaction within the service context (McKinney, Yoon & Zahedi, 2002; Arambewela, Hall & Zuhair, 2005; Liao, Chen & Yen, 2007; Archambault, 2008). This theory relates the relationship between the customer satisfaction and service quality. Drawing on EDP, service quality is defined as the discrepancy between customers' perceptions of service

received and their expectations. The expectations are viewed as desires or wants of customers, whereas customers' perceptions are subjective assessment of actual service experience. Based on EDP paradigm, SERVQUAL (service quality) scale was developed and extensively used to gauge quality attributes in multi-services settings. (Parasuraman et al., 1985, 1988, 1991). SERVQUAL consists of 22 indicators representing five dimensions as follows:

i. *Tangible* refers to the customer's perception of the appearance of physical facilities, equipment, personnel, and communications materials.
ii. *Responsiveness* refers to the willingness to help customers and the ability to provide prompt service.
iii. *Reliability* refers to the ability to perform the service accurately and dependably.
iv. *Assurance* refers to the knowledge and courtesy of employees and their ability to convey trust and confidence.
v. *Empathy* refers to the caring, individualized attention provided to the customer.

Service quality is measured based on a gap analysis (perceptions (P) – expectations (E)). Thus, if customers' perceptions exceed their expectations (P>E), service quality is very satisfactory. When customers' perceptions equal their expectations (P=E), service quality is satisfactory. However, when customers' expectations exceed their perceptions (E>P), service quality is poor.

Methodology

Population and Sample

This research was conducted at the selected Malaysian public hospitals. This research involved the customers who experienced the service delivery at Malaysian public hospitals. According to the data released by United Nations in 2018, the total population of Malaysian residents is 32,042,458. Thus, referring to Krejcie and Morgan (1970), 384 respondents is the best sample size to generalize a huge number of populations. The quota sampling technique was employed to select the respondents. The population was divided according to three location/zone of the hospitals, namely Hospital Kuala Lumpur (west zone), Hospital Tengku Ampuan Afzan (east zone), and Hospital Melaka (south zone). The main reason of dividing the population into three zones was to be more generalized in making decision of the population.

Instrumentation

The questionnaire was utilized as research instrument which comprised of three sections. Section I intended to assess the customers' perceptions towards service quality offered by public hospitals. Section II intended to measure the customers' expectations on service quality offered by public hospitals. SERVQUAL model was operationalized to measure service quality (Parasuraman et al., 1985, 1988, 1991). 22 items extracted from SERVQUAL scale were used to measure different aspects of healthcare service industry. These items were categorized into five dimensions, namely tangibles, assurance, empathy, responsiveness, and reliability. Modifications were made as the items were generated and validated within the healthcare context. Section III contained the questions to gather information regarding respondents' background and demographic profile.

Data Analysis

In this research, data gathered were analyzed using gap analysis (perceptions (P) – expectations (E)) to measure customer satisfaction toward service quality offered by Malaysian public

hospitals. Service quality is measured based on a gap analysis. Thus, if customers' perceptions exceed their expectations (P>E), service quality is very satisfactory

When customers' perceptions equal their expectations (P=E), service quality is satisfactory. However, when customers' expectations exceed their perceptions (E>P), service quality is poor.

Result

Demographic Profile of Respondents

In this research, a total of 215 completed questionnaires had proceeded to data analysis. This contributes to 56% of response rate. The descriptive analysis revealed that 59.5% customers who participated in this research were female and 40.5% were male. This indicated the female customers have higher participation as compared to male customers. Most of the customers participated in this research were in the 31-40 years age group. 59.5% of customers were married. The demographic descriptive results also revealed that 21% of customers participated in this research have completed at least secondary education. Besides, 66% of customers participated in this research were government servants.

Gap Analysis Results

In this research, SERVQUAL model was measured via five dimensions with 22 items: tangibles (4 items); reliability (5 items); responsiveness (4 items); assurance (4 items); and empathy (5 items). Gap analysis was performed to measure the discrepancy between customers' perceptions of service received and their expectations towards service quality offered by Malaysian public hospitals. The customers' perceptions are viewed as subjective assessment of actual service experience. On the other hand, the customers' expectations are defined as customers' desires of the service to be received. The descriptive analysis of an overall SERVQUAL mean revealed that the customer satisfaction towards service quality offered by Malaysian public hospitals was only at moderate satisfied, with mean 5.18. Figure 1 indicates the gap of SERVQUAL dimensions. On average, the empathy dimension showed the lowest service gap with -1.94. This finding implies that the service delivery at Malaysian public hospitals still needs improvement in terms of individualized attention to customers, especially customers with special needs.

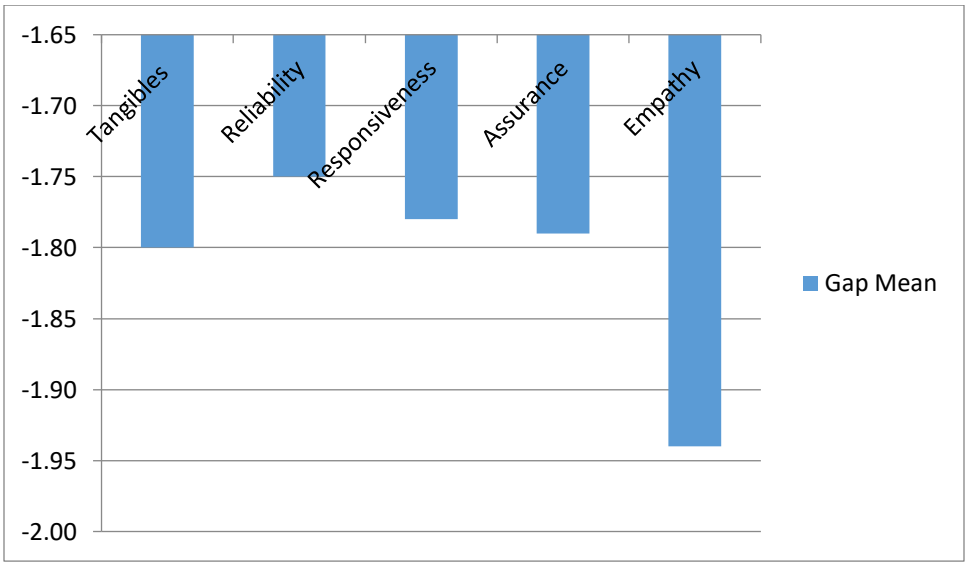

Figure 1 Gap Mean of SERVQUAL Dimensions

Next, the gap analysis for each indicator of SERVQUAL dimension was performed to inspect which service quality indicator contributes the critical gap. Table 1 shows the specific results of gap analysis. The results revealed that the items 17 and 20 had the highest gap values with -2.21 and -2.07, respectively. This indicates that the service providers at Malaysian public hospitals should assign employees who have the knowledge to answer questions and able to provide personal service to the customers.

Table 1 Gap Analysis Results

Dimension	Items	P	E	(P-E)
Tangibles	1) Excellent public hospitals will have modern looking equipment.	5.14	7	-1.86
	2) The physical facilities at excellent public hospitals will be visually appealing.	5.25	7	-1.75
	3) Employees at excellent public hospitals will be neat in their appearance.	5.24	7	-1.76
	4) Materials associated with the service (pamphlets or statements) will be visually appealing at the public hospitals.	5.19	7	-1.81
Reliability	5) When excellent public hospitals promise to do something by a certain time, they do.	5.16	7	-1.84
	6) When a customer has a problem, excellent public hospitals will show a sincere interest in solving it.	5.23	7	-1.77
	7) Excellent public hospitals will perform the service right the first time.	5.35	7	-1.65
	8) Excellent public hospitals will provide the service at the time they promise to do so.	5.38	7	-1.72

	9) Excellent public hospitals will insist on error free records.	5.22	7	-1.78
	10) Employees of excellent public hospitals will tell customers exactly when services will be performed.	5.21	7	-1.79
	11) Employees of excellent public hospitals will give prompt service to customers.	5.19	7	-1.81
	12) Employees of excellent public hospitals will always be willing to help customers.	5.25	7	-1.75
Responsiveness	13) Employees of excellent public hospitals will never be too busy to respond to customers' requests.	5.16	7	-1.84
	14) The behavior of employees/doctors in excellent public hospitals will instill confidence in customers	5.30	7	-1.70
	15) Customers of excellent public hospitals will feel safe in transactions.	5.35	7	-1.65
	16) Employees of excellent public hospitals will be consistently courteous with customers.	5.38	7	-1.62
Assurance	17) Employees of excellent public hospitals will have the knowledge to answer customers' questions.	4.79	7	-2.21
	18) Excellent public hospitals will give customers individual attention.	5.06	7	-1.94
	19) Excellent public hospitals will have operating hours convenient to all their customers.	5.03	7	-1.97
	20) Excellent public hospitals will have employees who give customers personal service.	4.93	7	-2.07
	21) Excellent public hospitals will have their customers' best interest at heart.	5.14	7	-1.86
Empathy	22) The employees of excellent public hospitals will understand the specific needs of their customers	5.15	7	-1.85

Discussion And Conclusion

This research was conducted to measure the customer satisfaction towards service quality at Malaysian public hospitals. In this research, SERVQUAL model was utilized to measure the healthcare service quality via five dimensions, namely tangible, responsiveness, reliability, assurance, and empathy. The general result of gap analysis indicated that the customer satisfaction towards service quality offered by Malaysian public hospitals was only at moderate level. Among SERVQUAL dimensions, empathy showed the lowest mean (satisfaction). This indicates service quality offered by Malaysian public hospitals still needs improvement in terms of individualized attention to customers, especially the attention to customers with special needs. Besides, the specific results of gap analysis for service indicators revealed that the SQ items 17 and 20 had the lowest (critical) gap values. This indicates the service providers at Malaysian

public hospitals should assign employees with the knowledge to answer questions from customers and able to give them personal service.

The research findings provide practical implications to the service providers in the healthcare industry. This research will assist the healthcare service providers to develop a specific strategic marketing tool to retain customers with their companies by understanding the customers' needs towards service quality aspects. This research has a limitation that could possibly suggest directions for future research. In this research, the customers who experienced the service delivery at Malaysian public hospitals were selected as the sample. However, past literature has claimed that different groups of respondents may experience the service in different ways (Mavondo, Tsarenko, & Gabbot, 2008; Ramsay, Barker, & Jones, 1999). Although all customers undergo the same service processes, evidence suggests that the customers experienced services at private hospitals placed higher demands on service experience compared to public hospitals. Therefore, it is recommended to conduct a comparative research between the customer experience at public hospitals and private hospitals to highlight similarities and differences between customer groups.

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PROPHETIC CREATIVE THINKING MODEL TESTING ON FELO MUDA DAKWAH (FMD), YAYASAN DAKWAH ISLAMIAH MALAYSIA (YADIM)

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Abstract: *Prophetic Creative Thinking Model developed by a group of researchers found to influence creativity among USIM students. However, the model needs to be tested beyond university level for its validity and reliability. Felo Muda Dakwah, a unit by YADIM provides such requirements. After several cohorts, it is found that the constructs of creativity level, Islamic creativity understanding construct, and creativity practices construct among fellows is unsatisfactory. Therefore, this study is to investigate such criteria among 140 FMD fellows. Using pre-test and post test procedure, with a developed set of questionnaires, this study found that gender is not significant on the construct of creativity level and practices. However, from the constructs of Islamic creativity understanding, gender factor is significant. Its also evidences that there is a significant effect on the level, practices and Islamic understanding constructs after those fellows went through certain module during their fellowship period. Thus, it is confirmed that level of creativity, practices of creativity and Islamic creativity understanding constructs have a significant effect on ones' creativity, and FMD fellows may become a holistic icon for da'wah in Malaysia.*
Keywords*: Learning; Creativity; Da'wah; Transformation; Icon; Prophetic Model*

Introduction

The 21st Century Skills movement does make creativity become important (Piirto, 2011) and a must skill in the era of knowledge and innovation (Adibah et al., 2015). Creativity requires both originality and effectiveness (Runco & Jaeger, 2012), but it is not exhaustive to both criteria (Simonton, 2018). Green (2010) then argue that creativity as a thought process that helps an individual in generating a new idea. Creativity also requires a value, in which Simonton (2018) believed, value (utility) may add to a multiplicative definition of creativity. After all, creativity ninvolves a divergent and convergent way of thinking (Guilford, 1986; Piirto, 2011) and it differentiates between original, brilliant and mediocre ideas (Adibah et al., 2015). Creativity also one of defining features that separate man from other species (Kim & Zhong, 2017). From an Islamic perspective, creativity is regulated (value form) by the concept of *bid'ah* that induced

Ijtihad, which set the limit and boundary of religious belief (Muhammad Mustaqim Mohd Zarif, Mohd Azmir Mohd Nizah, Anita Ismail, & Adibah Mohamad, 2013). It also can be evident from the event, historical account and exemplified from the life of Prophet Muhammad SAW (Adibah et al., 2015). It also signifies that the human mind does have a limit beyond its Creator (Mohd Azmir Mohd Nizah et al., 2015).

However, there is a convention agreement that creativity can be enhanced (Noor Azmi Ibrahim, 1998), or improve (Dikici & Soh, 2015; John Baer & James C. Kaufman, 2006). Creativity is a potential that exists in every individual despite differences of the level of creativity itself. In fact, each and every individual has their own creativity (Piirto, 2011). E. Paul Torrance (1981) outlined the characteristics of creative individuals as to someone who has a great curiosity on something, the higher determination in learning something that new, able to handle risk from a decision made, self-confidence, and self-reliance in carrying out everything and have divergent thinking. Guilford (1986) described the creative individuals tend to have more of divergent thinking from the way of thinking converge (convergent thinking). In addition, creative individuals will receive intuition as a legitimate aspect of their personality. Creative individuals are also able to create order out of disarray so that they will find regular patterns and explanations that did not exist before (Rimm, 2008). So, all in all, creativity can be enhanced, or create or develop based on several factors, that are cognitive ability, personality attributes, environmental factors, talent, motivation and necessary knowledge of the fields.

Creativity also has been regarded as the key competencies and crucial skills that facilitate an individual to have the ability to create something new, new methods or better ideas (Adibah et al., 2015). Thus, by having creativity values, it helps the students to produce something that new, superior, quality, and functional (Ismail & Atan, 2011). In this context, creativity is important in education as it creates an opportunity to a student to find a solution to problems of various challenges (John Baer & James C. Kaufman, 2006; Satiadarma, 2004). Various studies reported which have been conducted locally or internationally (Gan Wan Yeat, 1998; Lim & Plucker, 2000; Runco et al., 1998; Yong & Biraimah, 1996). While some studies refer to advantaged and disadvantaged students (Davis et al., 1972); or among gifted and disabled students; or either among kindergarten, elementary, middle schools and high school students; or even university students (Mohd Azmir Mohd Nizah et al., 2015) but near to none available study that examine creativity practices from the Islamic perspectives.

Therefore, this study is to identify creativity from Islamic perspectives; and to identify the differences in levels, practices and Islamic creativity perspectives. This study is designed to examine creativity among Felo Muda Dakwah, one of the unit under Yayasan Dakwah Islamiah Malaysia (YADIM) after several cohorts found that the constructs of creativity level, Islamic creativity understanding construct and creativity practices construct among its fellows is unsatisfactory. The analysis will be based on Prophetic Creative Thinking Model (PCTM) developed by Muhammad Mustaqim Mohd Zarif et al., (2012).

Literature review

The definitions of creativity are various, but originality and usefulness (F. Barron, 1955; Runco & Jaeger, 2012; Stein, 1953) become an integral part of its definitions. Surprise elements should be part of defining creativity (Simonton, 2018), and so do the elements of value or utility, which religious bound. It is also defined as activities that generate ideas that are new, unique, unusual and useful to solve problems or take advantage of an opportunity (Nieuwenhuizen & Rossouw,

2008). It is also commonly defined as the ability to generate a new idea or anything new or something that is different (Frank Barron, 1969; Levitt, 1974). It also means the ability to think of something new and/or unique way to generate problem-solving (Santrock, 2001). Moustakas (1977) defined creativity as experience in describing the individual self-identity, peoples, and nature while Haefele (1962) defined creativity as the ability to create new relationships that bear social or public significance. Despite the differences of its functions and focus, all these definitions agree that creativity is the ability, capability, experience or activity to create something original, purposeful and able to solve the problem faced. In explaining this further, Campbell (1977) elucidates "new" as something new, ground-breaking, fascinating, unique, remarkable and with no prior presence, while "useful" signifies the meaning to facilitate, encourage, improve, edify, solve problems, decrease barriers, and overwhelmed the difficulties that would result in a better or more affluent consequences

Torrance & Myers (1970) argue that few factors that could hamper an individual's thinking ability. Such factors are age, experience, and disease. Therefore, an established circumstance, which can support an individual in facing such constraints, is necessary. Creative works are sometimes more difficult to envisage or may not materialize due to things that happened by coincidence (Runco,2010), although some researchers believed otherwise (Ruggiero, 2009). Munandar (1999, 2004) has identified two sets of factors; internal and external, that could influence creativity and the creative process. Internal factors are factors that are inherent in the individual self-such as the ability to imagine, create new concepts, connect between various ideas, and others. On the other hand, external factors originate from the outside of the individual self, and these include peaceful environment, psychological freedom, existing facilities and infrastructures, supporting atmosphere to explore and make attempts to produce new things and appreciate works that are new, unique and creative.

From the Islamic perspectives, not far too many authors did an empirical studies that examine the contextual and operational definition of creativity or even from the life of Prophet Muhammad (Adibah et al., 2015; Al-Karasneh & Saleh, 2010; Al-Mazeidy, 1993; Mohd Azmir, Muhammad Mustaqim, Paimah, & Hisham, 2013; Muhammad Mustaqim Mohd Zarif et al., 2013). Therefore, creativity can be observed as the ability to produce something new and appropriate, beneficial to humans and adhered to the Islamic principles and maqasid shariah (Adibah et al., 2015; Yousif, 1999). Yousif (1999) argue that creativity is a process that took place to solve or confront any new challenges for a better worldly life. It is an essential to process as an outcome, a service or procedure or decision does not encroach the moral, value or belief borders set by religion (Muhammad Mustaqim Mohd Zarif et al., 2013).

Creativity in Islam, as emphasized by Muhammad Iqbal, is not deemed creative progress unless it is directed to a specific goal and bound with the concept of Tawhid (Fazlur Rahman, 1963). Thus, Al-Karasneh and Saleh (2010) outlines six qualities that rule the meaning of creativity which is [1] inspirational revelation - an inspiration resulted from some verses of the Quran that contextually reassure people to use a different technique of thinking. [2] All-inclusive that fused physical, mental, spiritual and religious elements. [3] The caliph must possess the physiognomies of being accountable, answerable, pious, modest and indebted. [4] Aptitude to accomplish core problem and tangible issues instead of secondary issues effectively. [5] Knowing human limitations - wisdom of the fact that men are imperfect and Allah is the most Knowing. [6] Thoughtful that physical and spiritual rewards as a basis of motivation to surpass in worldly life.

Muhammad SAW explicitly evidenced his creativity in managing religious, economic, social, political, military, and educational affairs (Adibah et al., 2015; Mohd Azmir et al., 2013) throughout emergence and establishments of Islamic civilization. In fact, far beyond from the pre-Islamic times when he resolved disputes between Arab tribes in relation to the placement of the black stones (Hajarul Aswad). His creative thought and creativity are also apparently reflected in leading the nation, making strategy and decisions, establishing relations with various tribes and preaching religious messages to others (Mohd Azmir et al., 2013). This is in line with the various styles of thinking in different Quranic verses that become proof that Islam encourages people to think creatively, to be creative and innovative.

Because there is lack of empirical study to emulate the cretivity aspects of Muhammad SAW besides various historical accounts, a study form Muhammad Mustaqim Mohd Zarif et al., (2012) then offer a new model, to begin with. It also found that their model is found to be effective in measuring the creative level among students (Anita Ismail et al., 2014; Mohd Azmir Mohd Nizah et al., 2015). However, implementing their model beyond student's years are still under study. Therefore, having the liberty to test the model beyond student's years is a privilege that must be commit, and confirm the rigorous model.

Methodology

This study is exploratory in nature and a quantitative design was employed using a survey method with a questionnaire set. Therefore, this study is considered as exploratory mode due to near to none available data of the subject matter except model and testing towards students (Mohd Azmir Mohd Nizah et al., 2015). This study using a purposive sampling technique, which involves applicants and candidates of Felo Muda Dakwah, YADIM. This study will be using a modified version of the Torrance Tests of Creative Thinking (TTCT), including questions featuring the Islamic perspective. TTCT has been acknowledging at least 75% of published works on primary and secondary schools, while 40% among college and adults (John Baer & James C. Kaufman, 2006). Therefore, using TTCT is conform to wide range usage to measure creativity of respondents. A modified question was specifically on the Islamic perspective developed by Anita Ismail et al., (2014). The questionnaire is divided into six parts, comprising demographic information, teamwork values, creativity self-perception, creativity level, and creativity practices and understanding creativity from the Islamic perspective. All of these items are in Likert-scale format. The other part of this questionnaire forms are in case study format, with qualitative answer in nature is required. In terms of validity and reliability, all spectrums of questions have been tested with Cronbach Alpha value of more than 0.752. A pre-test and post-test procedure are followed.

Thus, this study set two hypotheses to be tested as follows:

1. Creativity from the Islamic perspective among respondents across Gender

$H_0$1a: There is no significant difference in creativity from an Islamic perspective between male and female students for the pre-test.

$H_0$1b: There is no significant difference in creativity from an Islamic perspective between male and female students for the post-test.

2. Level of Creativity, Creativity Practice and Creativity from an Islamic Perspective

$H_0$2a: There is no significant difference in the level of creativity in the pre-test and post-test.

$H_0$2b: There is no significant difference in cretivity practice in the pre-test and post-test.

$H_0$2c: There is no significant difference in creativity from an Islamic perspective in the pre-test and post-test.

Findings and Discussion

All items are confirmed to meet the minimum reliability score with Cronbach's. Aplha ranging .813 (creativity level contructs), 831 (self-perception of creativity); .836 (Islamic creativity) and .866(creativity practices). Thus, all item are retained for further analysis. Descriptively, using independent t-test analysis for creativity practices among respondents, based on their gender, the research found that there are significant differences between male and female respondents on their creative practices from an Islamic perspective from both pre-test and post-test. The graph below summarises the finding.

Table 1: Demographics of Respondents

		Gender			
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Male	76	55.5	55.5	55.5
	Female	61	44.5	44.5	100.0
	Total	137	100.0	100.0	

Source: Author's Data

Hypothesises number one as stated below are examined.

1. Creativity from the Islamic perspective among respondents across Gender

$H_0$1a: There is no significant difference in creativity from an Islamic perspective between male and female students for the pre-test.
$H_0$1b: There is no significant difference in creativity from an Islamic perspective between male and female students for the post-test.

Table 2: Creativity From Islamic Perspective Based on Gender (Pre Test)

Gender	Mean	Std Dv	t	df	Sig.
Male	4.4842	0.38432	-0.267	135	0.864
Female	4.4950	0.34287			

Source: Author's Data

Table 3: Creativity From Islamic Perspective Based on Gender (Post Test)

Gender	Mean	Std Dv	t	df	Sig.
Male	4.5946	0.31103	-.031	29	0.975
Female	4.5983	0.34706			

Source: Author's Data

Based on Table 2, the value of p = -0.267. It is confirmed that there are significant differences in mean between the creativity from the Islamic perspective in gender accordingly in the pretest. Comparatively, a score of value p= -0.031 in Table 3 for a posttest shows a slight difference of mean between both genders. This finding is parallel with several studies, such as Baer & Kaufman (2006); Caparrós, Barrantes-Vidal, Viñas, & Obiols, (2008); DeMoss, Milich, & DeMers (1993); Kaufman (2006); and Matud, Rodriguez, & Grande (2007) that confirmed there was no significant difference in the level of creativity between male and female. However, on the other hands, various study shows otherwise (Eysenck, 1994; Maccoby, 1990; Norfauzi & Mohammad Yusof, 2002; Reiss, 2000; Stoltzfus, Nibbelink, Vredenburg, & Hyrum, 2011). Therefore, we can say that there was no significant difference between male and female in terms of their understanding of Islamic creativity. Reiss (2000) stated that various factors may affect the level of creativity, such as individual choices, social environment, and cultural setting contributes to the creativity level. Based on a non-conclusive account on the effect of gender toward the level of creativity, it is therefore summarized that creativity level may be differing from one to another when other factors are contributed simultaneously.

Hypothesis number two are outlined as below.

2. Level of Creativity, Creativity Practice and Creativity from an Islamic Perspective

$H_0$2a: There is no significant difference in the level of creativity in the pre-test and post-test.

$H_0$2b: There is no significant difference in cretivity practice in the pre-test and post-test.

$H_0$2c: There is no significant difference in creativity from an Islamic perspective in the pre-test and post-test.

On analyzing the differences between the level of creativity, creativity practices, and Islamic creativity perspective, a t-test analysis is used for posttest. Table 4, Table 5 and Table 6 are shown below

Table 4: Level of Creativity

Study	Mean	Std Dv	t	df	Sig.
Creativity Level	4.0334	0.52746	99.114	167	0.000

Table 5: Creativity Practices

Study	Mean	Std Dv	t	df	Sig.
Creativity Practices	3.6696	0.42436	112.080	167	0.000

Table 6: Islamic Creativity

Study	Mean	Std Dv	t	df	Sig.
Islamic Creativity	4.5088	0.35894	162.814	167	0.000

Based on the available schedule p = 0.000. Given the value p = 0.000 is smaller than the value of α = 0.05, the hypothesis is rejected. This means that there is a significant difference between the level of creativity among respondents on both pretest and posttest. It is thus confirmed that if given any specific treatment, creativity level may be increase. Therefore, in order to enhanced students creativity, a specific curricular and specific educational instruction must took place and in orderly so that the result may be witnessed. It is safe to say that, creativity level, creativity practices and Islamic creativity understanding of FMD participant are somewhat are increased throughout their fellowship period

Conclusion

This study compares the level of creativity regardless of gender differences towards the level of creativity, creativity practices and Islamic creativity perspective. The study affirmed that there is no significant difference between the level and practices of creativity among respondents across gender. However, there are significant differences on the aspects of creativity from the Islamic perspective. This study also showed that there is a significant difference between pretest and posttest score for the level of creativity. It shows students received input after a certain exposure during the period of study. On the other hand, significant changes are not appearing in the practices and creativity from the perspective of Islam aspects. Therefore, this study present that after receiving treatment, there are changes in the level of creativity of respondents, but continuous efforts have to be made from YADIM and parties involved in promoting the ability to think creatively and innovatively. Further study also indeed is in need to investigate on the creativity practices, during their fellowship period. The Islamic perspective of creativity also offers an interesting body of knowledge for prospect studies.

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GREEN HUMAN RESOURCE PRACTICES IN SMALL AND MEDIUM INDUSTRY IN MALAYSIA: A CASE STUDY

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Abstract: *Small and medium enterprises (SMEs) are becoming very significant to the economic growth and the success of SMEs was determined by the strong economic performance. However, it is no longer acceptable for the time being; economic and financial performance must be in line by minimizing ecological footprint and give more attention to social and environmental aspects. Furthermore, 60 percent of all carbon dioxide emissions and 70 percent of all pollutions caused by SMEs. Therefore, SMEs need to develop effective human resource management in order to help them manage their environmental actions, especially if the organizations are attempting to meet sustainability criteria. This paper examined the extent of green HRM practices (recruitment and selection, training and development, performance appraisal and compensation) implementation in SMEs industry in Malaysia. It provides a better understanding of the current green human resource management practices that have implemented by SMEs in the context of Malaysia.*

Keywords: *Small and Medium Enterprises (SMEs), Green Human Resource Management, Environmental Performance, Malaysia*

Introduction

Nowadays, numerous organizations around the world shifted their business perspective from dependence on processes that exploit the environment to the processes that are environmentally sustainable. This shifting lead to the changes in corporate cultures that set of policies of environmental concepts in functional units in an organization such as green management, green marketing, green supply chain, and green human resource management practices. The current study has suggested that, due to the emerging business, environmental performance indicates that the positioning of the green concept in every functional unit of organization play a crucial role in creating the environmental performance of organizations, especially in human resource management (HRM) department (Yusoff, Nejati, Kee & Amran, 2018). There is an increasing number of studies that investigate the role of HRM practices in driving environmental performance programs and supporting those programs. A study by Yusoff et al. (2018) showed that green recruitment and selection; green training and development; and green compensation contributed to the environmental performance in the hotel industry. While, Guerci, Longoni & Luzzini (2016) found that green training and involvement are positively related to environmental performance and green performance and compensation are positively related to environmental performance. Therefore, based on these studies, the results show that organizations that implemented green human resource management (HRM) practices, gain environmental performance in a long run and further contributing to the benefit of all organizational stakeholders in the future.

However, these studies only focus on a large organization and the research on the environmental performance issue, especially in small and medium organizations (SMEs), are

very scarce, practically non-existent (del Brío & Junquera, 2003). SMEs individually have very limited operations, and consequently would not have the potential to impact the environment as the large businesses. In fact, many SMEs owners believe that they have little impact on the environment (Rowe & Hollingsworth, 1996). However, it is argued that their total impact is high (Gadenne, Kennedy, & McKeiver, 2009) as the SMEs industry consists various types of businesses such as food and beverages, information technology, textile and many more and the overall impact of these individual SMEs will contribute to a greater impact on the local environment.

Therefore, this study explores the extent of green HRM practices implementation such as green recruitment and selection; green training and development; green performance appraisal; and green compensation in SMEs industry in Malaysia. SMEs play an important role in economic growth, employment opportunity, incubators for eco-innovation and create a new market. Regardless of their important roles towards the economic and social growth, this industry is argued that contribute to the environmental issues (Gadenne et al., 2009) and the estimates the collective impact of SMEs on the environment is large and might be greater than the combined environmental impact of large organizations (Hillary, 2000).

Literature Review

SMEs and Environmental Performance

In the past, the success of the organizations, especially SMEs was determined by the strong economic performance, this will ensure successfulness of the corporate and shareholder. However, it is no longer acceptable for the time being; economic and financial performance must be in line by minimizing ecological footprint and give more attention to social and environmental aspects. According to Hitchens, Thankappan, Trainor, Clausen and De Marchi (2005), SMEs play a significant role in the concerns of environmental sustainability because they are part of our civilization and cannot be sequestered from the environment, moreover, they also become the largest contributor to carbon footprint previously. Therefore, to compete in a global economy, organizations need to consider social responsibility to reduce the impact on the environment due to the activities they are doing (Tikul, 2014).

However, many factors need to be considered in managing the environmental issues, such as the availability of the resources, strategic manner, geographical areas, and the most important is the size of a company (Friedman, Miles, & Adams, 2000). Thus, this situation brings a difficulty to apply environmental performance programs resulting from the study of large organizations study to small organizations. Therefore, these fundamental differences between large and small organizations require a stronger understanding of the actual environmental performance context of SMEs (Tikul, 2014). SMEs have a smaller operation than the multinational organizations, however, the contribution of SMEs is enormous because they provided the biggest employment opportunity compare to the large organizations and a large number of SMEs operate in a highly competitive market with small profit margins (Rao, la O' Castillo, Intal, & Sajid, 2006).

Thus, they also contributed to the significant proportion of pollution in most of the part of the world as mentioned by Friedman et al. (2000). In the United Kingdom, all industrial pollutions were contributed by the SMEs and surprisingly for further environmental damage than large organizations. In addition, 60 percent of all carbon dioxide emissions and 70 percent of all pollutions caused by SMEs (Parker, Redmond & Simpson, 2009). Moreover, SMEs have lacked knowledge about the environmental issues and also not aware of their impact on the environment (Kassinis, 2001). At the same time, SMEs also facing the pressure from their stakeholders such as employee, customers, trade association and legislation to

consider the wider environmental impacts of their activities (Friedman et al., 2000). Many SMEs managers are unaware of the future benefits by implementing environmental performance programs in their business activities, therefore, they do not aware of a wide array of environmental technologies such as financing, related incentives, and marketing opportunities, as well as the environmentally friendly technology transfer (Rao et al., 2006). Hence, they just take environmental measures only in response to the threat of penalties imposed by government authorities. However, compliance to regulations imposed by the government will not ensure the sustainability of environmental performance (Rao et al., 2006). Therefore, SMEs need to develop effective human resource management in order to help them manage their environmental actions, especially if the organizations are attempting to meet sustainability criteria (Jabbour, 2011).

SMEs, Human Resource Management Practices and Environmental Performance.

In the Malaysia context, SMEs are playing a vital role in our economy and are considered to be the backbone of industrial development in the country, but at the same time, these organizations place little emphasis on the use of green HRM on their environmental performance. According to harsh market competition and a radically shifting business environment, SMEs are encouraged to adopt green HRM to improve their business operations as well as their environmental performance. The embedded of a strategy of green HRM in SMEs' corporate strategy can improve business competitiveness, and has provided genuine advantages for SMEs. As the SMEs plays a very important role to address issues related to the environmental performance, one important component in SMEs that need to be emphasized to help them reduce the impact on the environment is the HRM practices. Thus, the human resource function develops the driver of environmental sustainability in the company through the harmonization of practices, strategies, and policies with the goal of sustainability that reflects the focus on the environment. Typically, the majority of organizations around the world who have used the approach green initiative management that has been emphasized by the laws and regulations. However, in recent years, environmental forces such as customer demand for new product and a boycott by consumers have affected the business basic strategies of control and pollution prevention (Brockhoff, Chakrabarti & Kirchgeorg, 1999).

SMEs that neglect environmental considerations could incur a loss of customer's confidence. Hence, to achieve environmental performance, HR policies are driven to stimulate environmentally friendly behavior. For example, related to mobility (use of less polluting cars or public transport), policies relating to sustainable development of employees, and policies related to the selection and performance evaluation criteria which 'green' can be incorporated. Thus, today there are debates and ambiguity connected within what way green HRM values are able to execute successfully in SMEs, thereby enhanced the sustainability of the SMEs. Numerous researchers, especially in the field of HRM, stated that the efficiency and success in innovation management are reliant on the strategic tools available and human resource capacity so that they work on a strategic behavior (Boselie, Paauwe & Jansen, 2001). The human resources department of an organization is said to have the ability to play a vital role in developing a culture of sustainability of their organizations (Jackson & Seo, 2010). There is a need of study to identify the extent of green HRM practices implementation in SMEs. With environmental concerns influence any business decisions, the role of HR is likely to transform significantly and green HRM is expected to dominate the future of SMEs.

Methodology

This exploratory study employed a qualitative research approach; interviews. Owners/managers from 20 SMEs in Malaysia were asked about the extent of green HRM practices (recruitment and selection, training and development, performance appraisal and compensation) implementation in SMEs industry in Malaysia.

The total sample size of this study was 20 SMEs operating in Penang, Kedah, and Perlis with the criteria they must have been in the market for more than five years (Please see Table 1). In addition, the list of the SMEs was gathered from the list of registered SMEs in SME Corporation website. A response of the subjects was collected through the qualitative semi-structured interview with them. Although the data collection was based on a semi-structured questionnaire, the respondents had the freedom to raise issues not addressed by the questions, as long as they fell in the scope of the research.

Analysis

Table 1: Summarize of Respondents

Company	State	Year of Establishment
A	Penang	2012
B	Penang	2011
C	Penang	2008
D	Penang	2004
E	Kedah	1995
F	Penang	2005
G	Penang	2000
H	Penang	1999
I	Penang	2008
J	Penang	2009
K	Penang	2004
L	Penang	2002
M	Kedah	2009
N	Penang	2011
O	Perlis	2010
P	Penang	2011
Q	Penang	2005
R	Penang	1994
S	Penang	1989
T	Penang	2009

Source: Prepared by the author

The Extent of Green Human Resource Management Practices Implementation

Green Recruitment and Selection

Table 2: The Extent of Green Recruitment and Selection Implementation

No	Practices	Percentage of Agree
	Green Recruitment & Selection	
1	My company's environmental reputation attracts employees.	100%

2	My company expresses the preference to recruit candidates who have competency and attitudes to participate in corporate environmental performance initiatives.	60%
3	My company expresses certain environmental values (e.g. be a part of the green team or we are a socially and environmentally responsible employer) in the job advertisement of the company.	50%
4	All selection phases in my company consider environmental issues (e.g., resumes are submitted online, company websites are used by candidates to search for jobs, etc.).	100%

Source: Prepared by the author

According to the interview, 100 percent of respondents stated that they portray their environmental concerns to the public and this strategy helped them to attract the potential candidates to apply for jobs in their organizations (Please see Table 2). Respondent A stated that:

> *"We always tell people such as our customers and suppliers that our activities will take into consideration any environmental issues, in order for us to position our company as an environmentally friendly company. We believe due to this practice, it attracts people out there to work with us".*

While respondent K stated that:

> *"As we already in this industry more than 10 years, we always concern about the sustainability issues, therefore, we think with our CSR activities helped to create and enhance our image and people will look for a job in our company".*

Furthermore, 60 percent of the respondents stated that their organizations express the preference to recruit candidates who have competency and attitudes to participate in corporate environmental performance initiatives (Please see Table 2). Respondent C stated that:

> *"Our company prioritizes candidates with background knowledge of environmental issues, how to save energy and water".*

In addition, respondent N stated:

> *"To ensure the company is able to implement programs related to environmental sustainability issues, we try to recruit candidates who have knowledge of environmental issues as well as how to help companies to save energy, reduce non-recyclable materials and implement recycling programs".*

However, only 50 percent of the respondents express certain environmental values (e.g. be a part of the green team or we are a socially and environmentally responsible employer) in the job advertisement of their companies (Please see Table 2). For them, it is not important to mention this value as a specific concept of their business. They will explain their environmental value during induction and throughout the training sessions in the organization. As stated by respondents P, A and T:

> *"In job vacancy no need to state the position or values of the environmental value or our business concept towards the environment, so all can be expressed and further explain during the orientation activity".*
>
> *"We can provide further clarification on our environmental activities as well as our CSR culture through the training we provide to our employees".*

"In our company, green aspects introduced during the induction process to make employees more familiarize with our culture".

All of the respondents (100 percent) agree that in entire selection phases of their organizations, they take into consideration of environmental issues (e.g., resumes are submitted online, company websites are used by candidates to search for jobs, etc.) (Please see Table 2). Respondents D, G, and H stated that:

"Our company has practically adopted the principle of reducing paper usage, therefore, we prefer candidates email their resume and all documents are kept in the form of softcopy".

"We advertised the job vacancy online since 2010, and asked the candidates to email their resume and also scan the certificates, instead of photostat them".

Green Training and Development

Table 3: The Extent of Green Training and Development Practices Implementation

No	Practices	Percentage of Agree
	Green Training & Development	
1	My company analyses and identifies the environmental training needs of employees in order to make them more environmentally concerned.	60%
2	My company imparts the right knowledge and skills about greening (to each employee through a training program exclusively designed for environmental issues).	60%
3	My company provides opportunities for everybody to be trained in environmental performance aspects.	80%
4	In my company, environmental training is continuous.	65%

Source: Prepared by the authors

This study also examined the degree of green training and development implementation in the SMEs industry. Based on the interview, 60 percent of the respondents stated that they did analysis environmental training need and identify the training need in order to make their employees are more environmentally concerned (Please see Table 3). Respondents C, J, and N stated that:

"To ensure that our employees have the skills and knowledge of energy saving and all that is relevant to the environment, we conduct surveys to identify their training needs".

"We conduct training need analysis at the end of the year to ensure the necessary training and skills required to ensure that we meet the environmental performance within our company".

"company is constantly adopting open policies by giving employees the opportunity to provide an opinion on the training needed to improve their skills and knowledge of the concept of green and practices".

Furthermore, 60 percent of the respondents stated that they impart the right knowledge and skills about greening (to each employee through a training program exclusively designed for environmental issues) (Please see Table 3). Respondent N stated that:

"Our company provides specialized training to employees on how to save energy and air. For example, space that needs to be given priority for energy saving. In addition, we also regularly conduct training related to the green analysis of workspace so that they can produce reports on critical process issues or procedures that have critical green issues".

80 percent of the respondents stated that they provide opportunities for employees to be trained in environmental performance aspects (Please see Table 3). These organizations give an opportunity for their employees to proposed what types of environmental training they want and they also allow to propose the consultant company for that training as mentioned by respondent C:

"Our company is always open in providing training related to green or environmental issues. We provide our employees with the opportunity to provide suggestions on what training they want in relation to the environment. And they are also free to give advice on consulting companies who have the capability to provide this training".

While respondent T stated that:

"Our company practically adopts the concept of openness in providing training especially in relation to green as it can provide long-term benefits. We have no money for this purpose. So we send an employee to attend this training and he will share with other employees in the company".

Furthermore, 65 percent of the respondents stated that environmental training is continuous in their organizations (Please see Table 3). According to some of the respondents, these types of environmental training are costly, therefore, they cannot continuously provide this environmental training. As stated by respondent A:

"In my opinion, training related to environmental issues is quite expensive, so our company only sends employees undergoing training if the environmental issues are quite critical and involve legal issues".

Respondent K stated that:

"we usually provide training related to environmental issues if there are critical issues that have been extensively covered and involve our production directly. We do not have the big capital to invest in environmental training on a regular basis".

Table 4: The Extent of Green Performance Appraisal Implementation

No	Practices	Percentage of Agree
	Green Performance Appraisal	
1	My company establishes a clear and specific objective of environmental goals for each employee.	50%
2	My company assesses employees' contributions to environmental management.	60%
3	My company records individual environmental performance results.	65%

Source: Prepared by the authors

This study investigates the extent of green performance appraisal implementation in the SMEs industry in Malaysia. Only 50 percent of the respondents establish a clear and specific

objective of environmental goals for each employee (Please see Table 4). Respondent D stated that:

> *"It is difficult for our company to include green performance indicators into performance appraisals as it requires us to revise their job scope".*

This statement indicates that in order to establish performance appraisal that includes green performance indicator require the organizations to revise their overall job scope and this activity will take time and not relevant for their business as stated by respondent K:

> *"Green performance is not the main goal to be achieved when performing performance appraisal. We are more concerned with the achievement of workers who are in line with their main focus in carrying out their work".*

Due to the above issue, only 60 percent of the respondents assess employees' contributions to environmental performance programs (Please see Table 4). Usually, additional marks are given if the employee is successful in performing activities that can improve environmental performance. As stated by respondent Q:

> *"We give scores to employees who contribute to the improvement of environmental programs in the company such as successful 3Rs (recycle, reuse, and reduce) programs. And another example, if an employee gives a suggestion that can save on energy consumption, he will get more scores in his performance evaluation".*

Table 5: The Extent of Green Compensation Practices Implementation

No	Practices	Percentage of Agree
	Green Compensation	
1	My company rewards employee environmental performance (e.g. good, excellent and extraordinary).	65%
2	My company gives financial rewards to the employee for good environmental performance.	60%
3	My company gives non-financial rewards to the employee for good environmental performance (e.g. voucher, holiday package, sabbaticals, and special leave).	60%

Source: Prepared by the authors

According to the interview, 65 percent of the respondents stated that they rewarded their employees for their environmental performance (Please see Table 5). Hence, 60 percent of the respondents give financial rewards and also 60 percent of the respondents give non-financial rewards such as a voucher, holiday package, sabbaticals and special leave for their good environmental performance. Respondents B, G, and S stated that:

> *"Our company always celebrates the performance of employees especially those related to environmental issues or green. We give them cash bonus incentives".*
>
> *"For the effort to do something beyond the usual scope of work, requires more effort, therefore we should reward employees with excellent performance on environmental efforts, especially at workplaces".*
>
> *"We provide cash bonuses and non-cash rewards such as KFC vouchers to employees who provide suggestions on how to save energy, save paper and do recycling-related activities".*

Discussion and Conclusion

Based on this study, we found that SMEs industry in Malaysia implemented GHRM practices to a certain extent. In this study, green recruitment and selection have been found to be the general HRM practices that embedded with the green concept. By recruiting and selecting candidates with good environmental knowledge, concern, awareness and behavior will be a potential tool in improving a hotel industry's environmental image and performance (Chan, Hon, Chan & Okumus, 2014).

All of the respondents portray their environmental concerns to the public and this strategy helped them to attract the potential candidates to apply for jobs in their organizations. Furthermore, this study also found that green training and development also has been implemented in the SMEs industry in Malaysia. The green training and development program is the main core component of green HRM practices that help to enhance employee awareness of the environmental issues generated by the activities of the businesses (Bansal & Roth, 2000). Therefore, 80 percent of the respondents stated that they provide opportunities for employees to be trained in environmental performance aspects. On the other hand, this study found that only 50 percent of the respondents establish a clear and specific objective of environmental goals for each employee. This result is consistent with the previous study by Yusoff et al. (2018), as they found green performance appraisal was not found to be significantly related to environmental performance in the context of Malaysia. The reason for the low extent of the implementation of green performance appraisal in this study is possibly due to environmental issues in Malaysia's SMEs industry are still new and the SMEs have to revise their current job scope to include the green performance as well in employees current performance appraisal. However, SMEs industry in Malaysia still access the contribution of their employees toward environmental performance and recorded their employees' environmental performance results. In terms of green compensation, 65 percent of the respondents reward their employees on their environmental performance by financial and non-financial rewards. Employees who get compensation for their efforts in terms of environmental performance programs will help to improve the environmental performance of the organizations (Ahmad & Nizar, 2015).

This study is expected to provide insight into green HRM practices that could be implemented in the SMEs industry. Green HRM is all set to play an important role in the industry to enhance the environmental performance of the organizations and at the end gain competitive advantage (Rodríguez-Antón, del Mar Alonso-Almeida, Celemín, & Rubio, 2012). Furthermore, environmental performance in the SMEs industry led to several benefits such as further well-organized business practices, operational cost savings, better image, regulatory compliance and increased competitiveness (Quazi, 1999). SMEs need to be involved in the drive towards sustainability for the advantage of the environment and also the wider societal context.

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TOTAL FACTOR PRODUCTIVITY CHANGE OF BANKS AND COUNTRY GOVERNANCE'S DIMENSIONS NEXUS: EMPIRICAL EVIDENCE FROM ISLAMIC AND CONVENTIONAL BANKS

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Abstract: *This study investigate the impact of all 6 dimensions of country governance to the total factor productivity change of total 167 Islamic and conventional banks from the Southeast Asian countries, namely Malaysia, Indonesia, Brunei, and Singapore over a period of 2006 to 2016. In the 1st stage, the Data Envelopment Analysis-Based Malmquist Productivity Index (DEA-MPI) method employed to measure the banks' productivity. Meanwhile, the second stage employed a panel regression analysis to identify its impact of country governance and others determinants on banks productivity. Generally, the empirical findings indicate that the productivity of Islamic banks is higher than that of conventional banks. The liquidity and global financial crisis determinants influence both Islamic and conventional banks' productivity level. In contrast, bank size, credit risk, market power, management efficiency and inflation significantly influence the Islamic parts only. On the country governance side, voice and accountability is found to positively influence both Islamic and conventional banks' productivity. Regulatory quality and rule of law significantly influences the conventional parts. Political stability and absence of violence, government effectiveness, rule of law and control of corruption negatively influence the banks' productivity, but this influence is only significant for the Islamic banks. The issues discussed in this study are important because the related parties can use the empirical results to identify the micro- and macro-level determinants that may improve, enhance and maintain the productivity level of the Islamic and conventional banking sector.*

Keywords*: Country Governance; Data Envelopment Analysis-Based Malmquist Productivity Index; Islamic Banks; Conventional Banks; Total Factor Productivity Change*

Introduction

Since the early 1990s, studies on the efficiency of financial institutions have become an important part of banking literature (Berger and Humphrey, 1997). Nevertheless, limited studies have been conducted to investigate whether conventional and Islamic banks have performed productively as an intermediary. This could partly be due to unavailability of data. Thus, the question arises how banks perform in terms of their productivity.

Productivity measures the efficiency of converting a set of inputs to a set of outputs. Measurement of productivity is particularly crucial in process management in order to determine service capability and to identify improvement opportunities. A decline in productivity will slow down a firm's growth and reduce the competitiveness of the firm. According to Rose and Hudgins (2004), it seems unavoidable that in the future the productivity of banks will gain increased importance for generating profitability. The productivity level of the banks could be influenced by the internal and external determinants. The internal determinants focus on bank-specific features and are mainly influenced by a bank's management decisions and policy objectives, such as the bank size, credit risk, capitalization, market power, liquidity and efficiency of the management in the bank. While the external or the macroeconomic characteristics reflect the economic and legal environment that affects the operation and performance of financial institutions (Kamarudin *et al.*, 2016).

In addition, the governance practice also could impact the productivity level of the banks. Corporate governance is a set of rules which control and direct the management of an organization or institution. Even though Islamic and conventional banks have their own capabilities and strengths to be a greater competitor in the financial system, they are still affected by governance issue. Effective governance fosters efficient banks and capital markets. Banks that are deemed to be well governed find it easier to attract funds and clients and are more cost-effective. The corporate governance of bank is not similar to the governance of private companies, where it often called as bank governance. This separate analysis of bank evolves two related characteristics. Firstly, banks are not transparent about the services and lack of symmetry. Secondly, banks are frequently regulated in accordance with government regulations since they are crucial for the economic growth. In spite of that, bank governance of Islamic bank is differing from the conventional one because they are governed based on Syariah rules.

Mostly, the studies on bank's efficiency (Chortareas *et al.*, 2012; Hwang and Akdede, 2011) are more focused on the micro dimension of the governance, which has concentrated on corporate governance or bank governance within the institutions. This is because capital markets are predominant in the financial sector. However, the country governance has received surprisingly little attention in the banking industry over the past few decades. In point of fact, Lensink *et al.* (2008), Chortareas *et al.* (2012) and Kamarudin *et al.* (2016) expands the view to country governance or macro governance that also may have an overall significant impact on the efficiency of the banking sector that primarily covers the governance within the country.

Kaufmann *et al.* (2010) explain that country governance covers three governance clusters. Firstly, the assessment of voice and accountability (VA) and Political stability and absence of violence (PV) on how the governments are chosen, monitored and replaced. Secondly, the evaluation of government effectiveness (GE) and regulatory quality (RQ) on the government's capability to effectively formulate and implement sound policies. Thirdly, the measurement in accordance with the rule of law (RL) and control of corruption (CC) with the respect of citizens and the state for the institutions that govern economic and social interactions among them.

In summary, this study extends the work to investigate the earlier contributions on the productivity of Islamic and conventional banks operating in the four Southeast Asian countries (Malaysia, Indonesia, Brunei, and Singapore) banking sectors and to establish new empirical evidence on the impact of country governance. To do so, 30 Islamic banks and 137 conventional banks' data collected over the years 2006 to 2016. The analysis comprises of two main stages. In the first stage, we employ the Data Envelopment Analysis-Based Malmquist Productivity Index

(DEA-MPI) method to compute the banks productivity. We then employ panel regression analysis to examine the impact of country governance on the productivity of both Islamic and conventional banks. The paper also investigates to what extent others potential bank-specific characteristics and macroeconomic condition determinants influence the productivity of the banks.

The paper is set out as follows: In the next section we provide review of the related literature. Section 3 discusses the methods and variables employed in the study. We present the empirical findings in section 4. The article concludes and provides discussions on the policy implications in section 5.

Literature Review

Most previous studies have discovered mixed findings on the performance and efficiency levels between Islamic and conventional banks. Few studies (Ariss, 2010; Viverita, 2011; Beck *et al.*, 2013 and Khan *et al.*, 2017) states that the Islamic banks are performing better than conventional banks.

Ariss (2010) suggest that Islamic banks are more efficient than conventional banks because Islamic banks devoted a greater number of shares of their capitals to financing operations and are well capitalized than conventional banks. In addition, Viverita (2011) also pointed out that Islamic banks are more efficient compared to the conventional banks in Indonesia during the years from 2004 to 2008. This study found that Islamic banks appear to be able to produce greater revenue and more profitable compared to the conventional banks. This study also reveals that Islamic banks are more cost efficient when they are bigger in size than their conventional banks.

Beck *et al.* (2013) provided a comparative analysis of the Islamic and conventional banks over a period from 1995 to 2009. This study analyzed the data of 510 banks (422 conventional and 88 Islamic banks) over 22 countries. The indicates that quality of assets and capitalization of Islamic banks were functioning well during the global financial crisis.

More recently, Khan *et al.* (2017) also examined the performance between Islamic and conventional banks by using financial ratios. The data for this research consists of 5 Islamic and 19 conventional banks analyzed over the period from 2007 to 2014. They found that during the crisis Islamic bank's performance declined compare to the conventional banks. However, the findings show that Islamic banks are performing better than conventional banks in terms of profitability, efficiency, risk and liquidity management. This could be due to the expansion of Islamic banking industry and its broad engagement with customers in Pakistan.

While some studies provide contrary findings (Srairi, 2010; Sillah and Harrathi, 2015; Sukamana and Febriyati, 2016) that conventional banks are performing well compared to the Islamic banks. According to Srairi (2010), the Islamic banks are less efficient compared to conventional banks due to size of Islamic banks are relatively smaller than conventional banks, overall regulation which is not supportive and higher cost of funds and labor incurred in business operations. Saeed *et al.* (2013) also pointed out that conventional banks are more efficient than the Islamic banks due to the conventional bank's size relatively bigger than Islamic banks, managerial efficiency, good liquidity position and capital management.

In addition, Sillah and Harrathi (2015) reveals that conventional banks are more efficient than Islamic banks following 2008 financial crisis. This may be due to conventional banks are more efficient in adjusting their operations after the crisis and presence of large international

banks are supportive to domestic conventional banks, which makes them competitively efficient above their local counterparts, including Islamic banks.

Another study by Sukamana and Febriyati (2016) reported that conventional banks are significantly more efficient in terms of return on assets and better profit than that of Islamic banks. The reason behind this is conventional banks are successful in giving facilities to attract more customers into the business, advanced technology used in their operations and efficiency of the bank management.

Chortareas *et al.* (2012) suggest that the country governance could influence the bank performance. Kamarudin *et al.* (2016) seems to suggest that VA positively influence the revenue efficiency of both banking systems. This could be due to the citizens and state institutions played their role to promote democracy and eliminate the poverty which tends to improve the revenue efficiency of banks. This claim is supported by Lin *et al.* (2010) stated a greater freedom given to the citizens' in the government selection process which tend to increase the bank efficiency. Furthermore, Lensink *et al.* (2008) identified the higher VA tends to increase the level of media independence, where the quality of information on local developments will improve. This could benefit the foreign banks in interpreting local information or news that will be used to increase the banks' efficiency. Chortareas et al. (2012) also suggests that a more developed and democratic system could be built through more freedom in assertion and media in the country's system which influences the banks' efficiency.

Hwang and Akdede (2011) examined the impact of GE on public sector efficiency by using the sample data of 64 countries from the year 1995 to 2000. They reveal that effective government tends to increase the public sector efficiency. In other words, a positive relationship between government effectiveness and public sector efficiency could be found. This claim is supported by Kamarudin *et al.* (2016), who suggest that greater government credibility positively influence the revenue efficiency of Islamic and conventional banks in GCC countries. They point that government's trustworthiness could be found through its involvement in formulating and implementing policies and regulations for private sector development, eventually improves the bank performance.

Furthermore, Kamarudin *et al.* (2016) revealed that better RQ will enhance the efficiency of Islamic banks in GCC countries. In terms of regulatory quality, formulation and implementation of sound policies and regulations could be the reason for the development of GCC Islamic banking sector. Moreover, better regulatory quality may lead to more professional handling of bureaucracy and accountability of government employees which improves the banks efficiency. Similarly, Beltratti and Stulz (2009) states that better regulatory quality will lead to better bank performance. Lin *et al.* (2010) also discovered a positive link between regulatory quality and banks' efficiency.

With the regards on the impact of RL, Lin *et al.* (2010) state that a positive connection could be found between RL and banks efficiency level. Lensink *et al.* (2008) also suggest that cost efficiency of foreign banks could be affected by the quality of RL, where the effectiveness of the judiciary involved. They reveal that delays in judgments results cost inefficiency of banks. Therefore, better quality of rule of law could improve the bank's efficiency. Kamarudin *et al.* (2016) explained respect for order and law, effectiveness of judiciary system and enforceability of contracts comprises the better quality of rule of law in GCC countries. This shall be beneficial to the GCC banks in terms of reducing uncertainty and risk of conducting and starting businesses

and increase private sector investments, which subsequently improves the banks' efficiency and strengthen the market.

In addition, Kamarudin *et al.* (2016) discovered PV leads to higher bank efficiency. The findings supported by the fact that politicians fully used their authority to maximize social welfare rather than considering their own benefits. This may benefit the banks in terms of cost reduction and remove asymmetric information that allows banks to operate efficiently in terms of receiving deposits and providing loans. This directly contributes the development of banking sector. A comparative analysis by Huang *et al.* (2011) indicates that positive relation between political stability and bank efficiency would allow banks to handle transactions more efficiently in terms of deposits and loans.

Chortareas *et al.* (2012) shows the bank management in non-corruptive markets could achieve tremendous operational efficiency. In line with this study, Hwang and Akdede (2011) confirm that higher level of CC indicates higher level of public sector efficiency in terms of administration, stability and infrastructure. Kamarudin *et al.* (2016) mentioned the involvement of strong supervisory agencies in controlling corruption influence the efficiency of the banks. They might have been successful towards disciplining and monitoring banks in order to reduce the number of corruption, eventually improves the revenue efficiency of the conventional banks.

In summary, most of the studies have focused on the cost, profit and revenue efficiency of banks, while only a few have concentrated on the total factor productivity. The ignorance of productivity concept may lead to the lower profitability of the banks. Besides, empirical evidence on the effect of country governance on Islamic and conventional banks is relatively scarce. This lack of knowledge indicates the unawareness of the impact of the country governance on productivity and subsequently unexplored examination may not produce an accurate and valid finding. Hence, without the detailed investigation, we may unaware about the real impact of the country governance whether it may or may not improve the productivity of the Islamic and conventional banks. The claim is due to previous literatures indicate that the quality corporate governance may produce inconsistent results on the bank efficiency, but not on the perspective of country governance.

We try to fill these knowledge gaps and present more advanced study on the existing literatures in three ways. First, this study examines the productivity of the Islamic and conventional banks with the effect of country governance over the years 2006 to 2016. Second, the bank-specific traits and macroeconomic determinants of the productivity level particularly in Islamic and conventional banks are also discovered and revealed. Finally, to the best of knowledge, few studies, if not none, have been published to locate the impact of country governance on productivity level specifically in both Islamic and conventional banks.

Research Methodology

Data Sources

The study gathers data on the Islamic and conventional banks in the Southeast Asian countries, namely Malaysia, Indonesia, Brunei, and Singapore over a period of 2006 to 2016. The primary source of data for the respective banks retrieved from the Orbis Bank Focus database (formerly known as BankScope database) produced by the Bureau van Dijk. Orbis Bank Focus is a worldwide database which provides financial information such as banks' annual balance sheets and income statements of both listed and non-listed banks, with both Islamic and conventional banks. For the purpose of data standardization, this study uses the US Dollar (USD) in millions to

ensure consistency in the comparison of selected banks across the country. The World Development Indicators (WDI) database and International Monetary Fund (International Financial Statistics (IFS)) database is used to retrieve the data on the macroeconomic variables such as inflation and economic growth. Besides, the country governance data are sourced from Worldwide Governance Indicator (WGI) dataset. The data covers the information on governance indicators with the views of different stakeholders, including the surveys from companies and individuals, the assessments of commercial risk rating agencies, non-governmental organizations and other public sector organizations from industrial and developing countries globally.

During this study period, the number of observation is varied across time due to bank entry and exit factor and missing data for the observation years. Therefore, an unbalanced panel data of 167 banks are taken from 4 countries (30 Islamic and 137 conventional banks) used in this study. The total observations for Islamic banks consist of 17 banks from Malaysia, 11 banks from Indonesia, one bank from Singapore and one bank from Brunei Darussalam. While the data for conventional bank includes 29 banks from Malaysia, 90 banks from Indonesia, 17 banks from Singapore and one bank from Brunei.

First Stage Analysis

Data envelopment Analysis

In the first stage of empirical approach, this study will employ the data envelopment analysis (DEA) to examine the productivity level of Islamic and conventional banks. Even though both parametric and non-parametric frontier efficiency approaches are commonly used by the researchers, the data envelopment analysis (DEA) from non-parametric method is popular when evaluating the efficiency and productivity of the banking industry. DEA method produces beneficial, comparative and standard data that could stimulate remarkable improvements and lead companies to the new business practices.

Charnes *et al.* (1978) was originally developed the data envelopment analysis, while the first to involve DEA in the banking sector are Sherman and Gold (1985). DEA is a very flexible method of comparing the efficiency of various decision-making units (DMUs), which could be individuals, branches of a company, or entire firm. This approach concentrates on measuring the relative efficiency of the various DMUs as they convert their inputs into outputs.

Malmquist Productivity Index

Productivity is a technical concept which measure the efficiency by a ratio of output to input where the factors of production are used. The Total Factor Productivity (TFP), however, measure productivity by taking into account all factors of production.

According to Bjurek (1996), the Malmquist productivity index has become the standard approach in total factor productivity measurement over time. It is a quantity index, defined by Malmquist (1953). Caves *et al.* (1982) explains that there are two approaches to measure productivity changes. First approach describes productivity changes as changes in maximum output produced on a given level of inputs. This approach contributes to output based productivity indexes. The alternative approach suggests that productivity changes as changes in minimum input on a given level of outputs. This idea leads to input based productivity indexes

There are number of advantage using the measurement of Malmquist index. Among them which it can be measured without any information on the prices of inputs and outputs and provides a decomposition of productivity change into technical change and efficiency change,

and thereby offers an insight into the potential sources of change in total factor productivity. This is essential because efficiency change may show whether a firm or institution is moving closer to the best practice frontier in running the business operations or vice versa in a particular sector. While technical change shows whether the best practice frontier (or technology) to which a firm is being compared is either improving, stagnant or declining.

Over the years, increasing number of studies has utilized DEA-based Malmquist Productivity Index to study the efficiency change and/or productivity growth in the banking sector in various contexts (Kamarudin *et al.*, 2017; Sillah and Harrathi, 2015). Matter of fact, this MPI method do not allow for random errors which can cause biased efficiency scores that leads to biased Malmquist indices.

For the purpose of this research, the productivity changes of Islamic and conventional banks are measured by employing the output-based Malmquist index and further allocation of the Total Factor Productivity Change (TFPCH) into technological change (TECHCH) and Efficiency Change (EFFCH). The EFFCH then leads to changes in Pure Technical Efficiency Change (PTECH) and/or Scale Efficiency Change (SECH) as suggested by Färe *et al.* (1994).
According to Färe et al. (1994) an equivalent way of writing MPI index is:

$$M_o(x^{t+1}, y^{t+1}, x^t, y^t) = \frac{D_o^{t+1}(x^{t+1}, y^{t+1})}{D_o^t(x^t,\ y^t)} \times \left[\left(\frac{D_o^t(x^{t+1},\ y^{t+1})}{D_o^{t+1}(x^{t+1}, y^{t+1})}\right) \times \left(\frac{D_o^t(x^t, y^t)}{D_o^{t+1}(x^t, y^t)}\right)\right]^{1/2} \quad (1)$$

M is the productivity change between years' *t* and *t + 1* where most recent production point (x^{t+1}, y^{t+1}) corresponds with the earlier production point (x^t, y^t) and *D*s are output distance functions. Any value greater (lower) than 1.000 will indicate total factor productivity growth (regress) between two periods, whereas value equivalent to 1.000 signals no change.

The relationship between the MPI and its two sub-indices can be written as:

$$M_o = \text{Efficiency Change} \times \text{Technical Change} \quad (2)$$

where,

$$\text{Efficiency Change} = \frac{D_o^{t+1}(x^{t+1}, y^{t+1})}{D_o^t(x^t, y^t)} \quad (3)$$

$$\text{Technical Change} = \left[\left(\frac{D_o^t(x^{t+1}, y^{t+1})}{D_o^{t+1}(x^{t+1}, y^{t+1})}\right) \times \left(\frac{D_o^t(x^t, y^t)}{D_o^{t+1}(x^t, y^t)}\right)\right]^{1/2} \quad (4)$$

The efficiency change index can be further decomposed into its mutually comprehensive components of PTECH ($\Delta\text{PureEff}^{t,t+1}$), calculated relative to the VRS technology and a component of SECH ($\Delta\text{Scale}^{t,t+1}$), capturing changes in the deviation between the VRS and CRS technologies according to the suggestion of Färe et al. (1994) as shown below:

$$\text{Efficiency Change} = \Delta\text{PureEff}^{t,t+1} \times \Delta\text{Scale}^{t,t+1} \quad (5)$$

where,

$$\Delta\text{PureEff}^{t,t+1} = \frac{D_{VRS}^{t+1}(x_j^{t+1}, y_j^{t+1})}{D_{VRS}^t(x_j^t, y_j^t)} \quad (6)$$

$$\Delta\text{Scale}^{t,t+1} = \frac{D_{CRS}^{t+1}(x_j^{t+1},y_j^{t+1})/D_{VRS}^{t+1}(x^{t+1},y^{t+1})}{D_{CRS}^{t}\left(x_j^{t},y_j^{t}\right)/\, D_{VRS}^{t}(x_j^{t},y_j^{t})} \quad (7)$$

All efficiency scores are restricted to lie between zero and one. Since 2006 is the reference year, the MPI and its components take an initial score of 1.000. Hence, efficiency scores lower (greater) than one for a firm in subsequent years indicate that it is operating below (above) the frontier. The efficiency score reflects the radial distance from the estimated production frontier to the DMUs under consideration.

Variable Specification in DEA Approach

The input-output specification is one of the important elements in measuring the total factor productivity change using DEA-based Malmquist Productivity Index (DEA-MPI) approach. The intermediation approach preferably adopted in this study to examine the bank's productivity as a whole since the bank considered as intermediary. Furthermore, the intermediation approach is suitable to determine the production process of both Islamic and conventional banks which act as intermediaries between depositors and borrowers.

Based on the intermediation approach, this study will include two outputs and three inputs to examine the productivity of Islamic and conventional banks in selected Southeast Asian countries from 2007 to 2016. The deposits (x1), personnel expenses (x2), and asset (x3) are determined as inputs, while loans (y1) and investments (y2) are considered as outputs (*y*)

Second Stage Analysis

Multiple Panel Regression Analysis

In the second stage of analysis, this study employs the Multiple Panel Regression Analysis (MPRA) framework based on the Ordinary Least Square (OLS) and Generalized Least Square (GLS) methods to investigate the potential determinants of total factor productivity change in Islamic and conventional banks. This panel regression technique could identify the possible correlations between data gathered from the financial statements and the macroeconomic data to measure the performance of banks. This MPRA method is more efficient, informative with variability and allows better detection and measurement of effects that simply could not be observed in other traditional analysis techniques. In order to analyze the determinants of banks' productivity, two-stage least square models are used in this study. However, it is very much important to conduct the Breusch Pagan and Lagrangian Multiplier test before the results are based on any models, in order to identify either the data appropriate to be pooled or panel. Thus, if the p-value of Breusch Pagan and Lagrangian Multiplier Chi-Square (X^2) is significant at level 5%, the panel is more suitable than pooled data.

First, we use the pooled OLS model to examine the relationship between productivity level of banks and other potential determinants such as bank-specific characteristics and macroeconomic factors. Even though the pooled OLS model has its own advantage, some additional problems may occur during the data analysis. The possibilities are there when the panel data involve both cross-section and time dimensions, heteroscedasticity and autocorrelation problems need to be addressed. Additional problems may arise when cross-correlation in individual units at the same point in time exists. Therefore, both FEM and REM models based on GLS model are employed in this study to address one or more of these problems. The FEM is

based on the notion that differences across different banks can be captured in the constant term. In other words, FEM intercept is allowed to differentiate individual or cross-sectional unit that may have some special characteristics among individuals. Therefore, the model is a reasonable approach to be adopted, since it gives confidence on the identification of differences between banks. On the other hand, REM is adopted in this study because it is appropriate to use when the sampled cross-sectional units are drawn from a much larger population. Thus, the individual constant terms are randomly distributed across the cross-sectional units. Hausman test can be used to identify whether FEM or REM is appropriate based on null hypothesis. The FEM may be more appropriate to be used if the null hypothesis is rejected (at 1% to 5% significant levels only), while REM is considered to be more suitable if the null hypothesis is failed to reject (significant at only 10%)(Kamarudin *et al.*, 2016).

In addition, this study also usesa battery of parametric (*t*-test) and nonparametric (Mann-Whitney (Wilcoxon) and Kruskal-Wallis) tests to investigate the differences in the productivity (*y*-axis) of the Islamic and conventional banks in selected Southeast Asian countries. Furthermore, we perform a step-wise regression rather than simultaneous regression models in the test conducted particularly for the country governance variables. This is to avoid severe multicollinearity or redundant problem (data overlapping) due to high correlation among some of the variables used in the tests.Finally, 12 regression models are estimated to examine the relationship between potential determinants and TFPCH of Islamic and conventional banks.

Variable Specification in Regression Models

As mentioned in the previous section, the dependent variable used in the regression models is TFPCH of the bank in year *t*. While the description of the independent variables (*x*-axis) used in the second stage of analysis is presented in this section. These variables consist of bank-specific characteristics, macroeconomic conditions, and country governance.

Variable	Note
Bank-Specifics	
lnTA	Bank size indicates the natural logarithm of the banks' total assets (lnTA), to capture cost advantages associated with economies of scale. A positive relationship between the size of banks and productivity indicates that higher profitability could be expected in larger sized banks. Meanwhile, the bank size can negatively impact the banks' productivity due to bureaucratic, poor economies of scale and other possible reasons.
lnLLRGL	Credit risk is natural log of loan loss provisions over gross loan (lnLLRGL). The negative impact of credit risk on the bank efficiency indicates that banks with higher credit risk will have lower bank efficiency. Meanwhile, positive relationship between credit risk and bank efficiency level reveals that the lower credit risk improves the bank performance.
lnETA	lnETA or capitalization represents the earnings over total assets. The positive coefficient of capital adequacy shows that well-capitalized banks are more efficient. Besides, the capitalization tends to have a negative relationship with the bank profitability. This indicates that highly capitalized banks could have lower efficiency levels.
lnBDTD	Market power is proxied by lnBDTD or as a bank's deposits over the total deposits

	and a positive or negative coefficient could be predicted. The positive sign indicates that higher market power leads to the assumption of smaller credit risk; hence increase the profitability of banks. Meanwhile, market power could negatively influence the bank efficiency level, which reveals that highly efficient banks tend to have a lower market share.
lnLOANSTA	lnLOANSTA is the natural logarithm of liquidity utilized in the present study. This variable is used to control the bank-specific lending intensity. The positive coefficient shows that higher liquidity motivates banks to extend more loans; hence more profit could be acquired. Negative relationship between liquidity and bank performance shows that higher liquidity tends to reduce bank profitability.
lnNIETA	The management efficiency proxies the non-interest expense over total assets (lnNIETA). The negative relationship between overhead expenses and bank efficiency indicates lower personnel expenses, which constitute better management quality. Meanwhile, management quality also indicates a positive and significant relationship with productivity change of banks
Macroeconomic Factor	
lnGDP	The Gross Domestic Product (lnGDP) is one of the most commonly used macroeconomic indicators to measure the economic activity in a country. Several studies identified a positive relationship between economic growth and bank efficiency.
lnCPI	The inflation is authenticated by the current period of consumer price index growth rate (lnCPI). The positive sign indicate if the rate of inflation is anticipated and banks are able to adjust interest rates accordingly resulting in revenues to increase faster than costs. A negative relationship between inflation and bank efficiency level states that the failure of management to forecast the future inflation (unanticipated inflation) and make an adjustment to the costs accordingly will lead to costs rise faster than revenue.
GFC	GFC or dummy global financial crisis is presented in the panel regression to identify the determinants of bank productivity during a crisis period 2007 to 2008. The coefficient is expected to be negatively (positively) impact the banks' productivity, which indicates the lower (higher) sign of performance during the financial crisis. A value of "1" taken for the period of crisis and "0" value if indicate otherwise
Country Governance	
lnVA	The higher score of voice and accountability (lnVA) variable signals that greater participation of citizens in the government selection process, freedom of expression, and free media.
lnPV	The political stability and absence of violence (lnPV) with higher grade shows higher political stability.
lnGE	The higher scale value in the government effectiveness (lnGE) indicates better commitments of government to their policies.
lnRQ	The higher value of regulatory quality (lnRQ) indicator reveals the governments' ability to formulate and implement good policies and regulations in the country.

lnRL	A higher grade of rule of law (lnRL) represents better quality of contract enforcement, judiciary system, and property rights.
lnCC	A higher value of control of corruption (lnCC) shows that better quality of supervisory agency's control over the public power to eliminate corruption in the society.

Estimation Method

In this analysis, the total factor productivity change scores derived from the DEA-MPI will be the dependent variables (y-axis). The panel regression model estimated as the following equation:

$$\ln (TFPCH)_{ijt} = \alpha + \beta_{ijt} \ln(TA)_{ijt} + \beta_{ijt}\ln(LLRGL)_{ijt} + \beta_{ijt}\ln(ETA)_{ijt} + \beta_{ijt}\ln(BDTD)_{ijt} + \beta_{ijt}\ln(LOANSTA)_{ijt} + \beta_{ijt}\ln(NIETA)_{ijt} + \beta_{jt}\ln(GDP)_{jt} + \beta_{jt}\ln(CPI)_{jt} + \beta_{jt}\,GFC_{jt} + \beta_{jt}\ln(VA)_{jt} + \beta_{jt}\ln(PV)_{jt} + \beta_{jt}\ln(GE)_{jt} + \beta_{jt}\ln(RQ)_{jt} + \beta_{jt}\ln(RL)_{jt} + \beta_{jt}\ln(CC)_{jt} + \varepsilon_{jit}$$

where,

j	= observation for a country
i	= observation of individual bank
t	= observation for year
β	= the vector of coefficients
α	= a constant term (intercept term)
ε_{ijt}	= normally distributed disturbance term
ln	= Natural Logarithm
TA	= Total bank assets (size of bank)
LLRGL	= Loan loss reserve to gross loan (credit risk)
ETA	= Equity over total assets (capitalization)
BDTD	= bank's deposit over total deposit (market power)
LOANSTA	= Total loan over total assets (liquidity)
NIETA	= Noninterest expenses over total assets (management efficiency)
GDP	= Gross domestic product (economic growth)
CPI	= Consumer price index (inflation)
GFC	= Global financial crisis
VA	= Voice and accountability
PV	= Political stability and absence of violence
GE	= Government effectiveness

RQ = Regulatory quality

RL = Rule of law

CC = Control of corruption

Results and Findings

Productivity of Islamic and conventional banks and its decompositions

The productivity results depicted in Panel A of Table 4.1 show that the overall banking sector in four countries has on average exhibited a TFPCH regress of -11.1% (0.889). The results seem to suggest that all banks have exhibited TFPCH regress, a lower -0.02% (0.998) in the year 2007 and a higher -1.2% (0.988) in the year 2016. During the period under study, the -11.1% (0.889) regress in the TFPCH of the overall banking sector could be attributed mainly to the -19.5% (0.805) decrease in TECHCH, as the rate of EFFCH seems to increase at 10.5% (1.105). The decomposition of the EFFCH index into its PTECH and SECH components indicates that the source of the increase in overall banks' EFFCH was mainly contributed by pure technical efficiency rather than scale efficiency. Overall, the results imply that during the period of study, all banks are operating at the wrong scale of operations, although both Islamic and conventional banks are more managerially efficient in controlling costs.

Panel B of Table 4.1 presents the findings for the Islamic banks individually. Over the period of the study, the results seem to suggest that the banks have showed a regress in TFPCH by -5.5% (0.945). The decomposition of the TFPCH index into its TECHCH and EFFCH components indicates that the regress in the Islamic banks' TFPCH was solely attributed to the -13.3% (0.867) decrease in TECHCH, as the EFFCH seems to have a more slowly increasing rate of 9% (1.090) during the period under study. The decomposition of the EFFCH index indicates that the dominant source of the increase in the Islamic banks' EFFCH is managerial rather than scale. This implies that although the Islamic banks are good in terms of managerial efficiency, they have been operating at a non-optimal scale of operations.

The empirical findings presented in Panel C of Table 4.1 show that the conventional banks' TFPCH has decreased by -11.1% (0.889), a stronger rate of decline compared to their Islamic counterparts. Similar to their Islamic peers, the decomposition of the TFPCH index into its TECHCH and EFFCH components indicates that the -19.5% (0.805) decrease in TECHCH has largely contributed to the conventional banks' TFPCH regress. Furthermore, the conventional banks seem to have exhibited EFFCH progress at 10.5% (1.105).The decomposition of the EFFCH index into its PTECH and SECH components reveals that the dominant source of the increase in the conventional banks' EFFCH was managerial efficiency, rather than scale related. This finding clearly shows that conventional banks have been operating at the wrong scale of operations.

Number of banks Analysis for Productivity of Islamic and conventional banks

An analysis based on the productivity levels of banks may be biased by a few observations (Isik and Hassan, 2002). Hence, performing an analysis based on the number of banks, which is less sensitive to possible outliers, would be beneficial in this situation (Kamarudin *et al.*, 2017). To address this concern, in the following analysis, this research elaborates further the productivity of Islamic and conventional banks by summarizing the developments in the number of banks experiencing productivity progress or regress. The findings are given in Panels A-C of Table 4.2.

The results in Panel A of Table 4.2 indicate that 34 (40.48%) banks from all four countries experienced productivity growth in 2007, inclining gradually to 54 (52.94%) banks during the year 2009 and increasing to 56 (44.44%) banks in the year 2016. Further observations in Panel A of Table 4.2 indicate that the number of banks that faced technological progress increased from 37 (44.05%) during the year 2007 to 95 (93.14%) during the year 2009, drastically declined to 12 (9.60%) in 2014 and increased back to 35 (27.78%) in the year 2016. In contrast, the number of banks that experienced technological regress declined from 47 (55.95%) in 2007 to 7 (6.86%) in 2009 but radically increased to 113 (90.40%) during the year 2014 before declining slowly to 91 (72.22%) in the year 2016.

The results of the analysis based on the number of Islamic banks facing productivity progress and/or regress is presented in Panel B of Table 4.2. As the findings indicate, only 7 (50.00%) Islamic banks experienced productivity growth in the year 2007, increasing gradually to reach a high of 21 (72.41%) Islamic banks during the year 2012. However, the productivity level dropped again to 13 (65.00%) Islamic banks in the year 2016. Similarly, Islamic banks that exhibited technological progress increased from none in 2007 to 21 (91.30%) in 2010 but decreased to 17 (85.00%) during the year 2016. Furthermore, the number of Islamic banks shows a technology regress for 14 (100.00%) banks during the year 2007, decreasing to 2 (8.70%) banks in 2010 and increasing to 3 (15.00%) in the year 2016.

In addition, Panel C of Table 4.2 discusses the developments in the percentage changes of the conventional banks' productivity progress or regress. From the observations, it can be seen clearly that the number of conventional banks that indicated productivity progress increased from 27 (38.57%) during the year 2007 to 52 (49.52%) in 2015 but dropped to 43 (40.57%) in the year 2016

Table 4.1: Bootstrap Malmquist productivity index decompositions

Year	**TFPCH**	**TECHCH**	**EFFCH**	**PTECH**	**SECH**
Panel A: All Banks					
2006	1.000	1.000	1.000	1.000	1.000
2007	0.998	0.910	1.285	1.146	1.164
2008	0.995	0.909	1.280	1.146	1.159
2009	0.994	0.906	1.284	1.140	1.167
2010	0.992	0.904	1.307	1.146	1.185
2011	0.992	0.904	1.308	1.146	1.185
2012	0.992	0.903	1.307	1.150	1.184
2013	0.992	1.031	1.329	1.166	1.201
2014	0.989	0.891	1.371	1.173	1.251
2015	0.989	0.887	1.391	1.181	1.256
2016	0.988	0.888	1.390	1.182	1.254
Geometric mean	*0.889*	*0.805*	*1.105*	*1.059*	*1.042*
Panel B: Islamic Banks					
2006	1.000	1.000	1.000	1.000	1.000
2007	1.043	0.986	1.216	1.132	1.094
2008	1.036	0.984	1.204	1.129	1.091
2009	1.022	0.962	1.228	1.137	1.113

2010	1.020	0.963	1.220	1.131	1.116
2011	1.021	0.962	1.228	1.138	1.113
2012	1.025	0.951	1.252	1.138	1.135
2013	1.023	0.955	1.236	1.131	1.129
2014	1.022	0.962	1.222	1.127	1.122
2015	1.020	0.967	1.218	1.130	1.114
2016	1.023	0.965	1.223	1.130	1.119
Geometric mean	*0.945*	*0.867*	*1.090*	*1.062*	*1.025*
Panel C: Conventional Banks					
2006	1.000	1.000	1.000	1.000	1.000
2007	0.998	0.910	1.285	1.146	1.164
2008	0.995	0.909	1.280	1.146	1.159
2009	0.994	0.906	1.284	1.140	1.167
2010	0.992	0.904	1.307	1.146	1.185
2011	0.992	0.904	1.308	1.146	1.185
2012	0.992	0.903	1.307	1.150	1.184
2013	0.992	0.896	1.329	1.166	1.201
2014	0.989	0.891	1.371	1.173	1.251
2015	0.989	0.887	1.391	1.181	1.256
2016	0.988	0.888	1.390	1.182	1.254
Geometric mean	*0.889*	*0.805*	*1.105*	*1.059*	*1.042*

Note: The table presents the geometric mean of the bias-corrected bootstrap total factor productivity change (TFPCH) index and its mutually exhaustive components of technical change (TECHCH) and efficiency change (EFFCH) that is further decomposed into pure technical efficiency change (PTECH) and scale efficiency change(SECH).

Table 4.2: Number and percentage of Islamic and Conventional banks with productivity progress and regress

	Productivity Change TFPCH			Efficiency Change EFFCH			Technological Change TECHCH			Pure Efficiency Change PTECH			Scale Change SECH		
Period	Progress # (%)	Regress # (%)	No Δ # (%)	Progress # (%)	Regress # (%)	No Δ # (%)	Progress # (%)	Regress # (%)	No Δ # (%)	Progress # (%)	Regress # (%)	No Δ # (%)	Progress # (%)	Regress # (%)	No Δ # (%)
Panel A: All Banks															
2006-2007	*34 (40.48)*	*50 (59.52)*	*0 (0.00)*	*32 (38.10)*	*49 (58.33)*	*3 (3.57)*	*37 (44.05)*	*47 (55.95)*	*0 (0.00)*	*38 (45.24)*	*32 (38.10)*	*14 (16.67)*	*33 (39.29)*	*49 (58.33)*	*2 (2.38)*
2007-2008	*47 (52.22)*	*42 (46.67)*	*1 (1.11)*	*41 (45.56)*	*43 (47.78)*	*6 (6.67)*	*37 (41.11)*	*53 (58.89)*	*0 (0.00)*	*44 (48.89)*	*28 (31.11)*	*18 (20.00)*	*21 (23.33)*	*63 (70.00)*	*6 (6.67)*
2008-2009	*54 (52.94)*	*47 (46.08)*	*1 (0.98)*	*81 (79.41)*	*12 (11.76)*	*9 (8.82)*	*95 (93.14)*	*7 (6.86)*	*0 (0.00)*	*60 (58.82)*	*16 (15.69)*	*26 (25.49)*	*72 (70.59)*	*20 (19.61)*	*10 (9.80)*
2009-2010	*32 (29.63)*	*76 (70.37)*	*0 (0.00)*	*25 (23.15)*	*76 (70.37)*	*7 (6.48)*	*83 (76.85)*	*25 (23.15)*	*0 (0.00)*	*25 (23.15)*	*55 (50.93)*	*28 (25.93)*	*32 (29.63)*	*68 (62.96)*	*8 (7.41)*
2010-2011	*52 (49.06)*	*54 (50.94)*	*0 (0.00)*	*45 (42.45)*	*50 (47.17)*	*11 (10.38)*	*54 (50.94)*	*52 (49.06)*	*0 (0.00)*	*50 (47.17)*	*25 (23.58)*	*31 (29.25)*	*27 (25.47)*	*68 (64.15)*	*11 (10.38)*
2011-2012	*55 (45.45)*	*66 (54.55)*	*0 (0.00)*	*59 (48.76)*	*46 (38.02)*	*16 (13.22)*	*40 (33.06)*	*81 (66.94)*	*0 (0.00)*	*55 (45.45)*	*32 (26.45)*	*34 (28.10)*	*50 (41.32)*	*56 (46.28)*	*15 (12.40)*
2012-2013	*40 (36.04)*	*71 (63.96)*	*0 (0.00)*	*74 (66.67)*	*30 (27.03)*	*7 (6.31)*	*13 (11.71)*	*98 (88.29)*	*0 (0.00)*	*61 (54.95)*	*32 (28.83)*	*18 (16.22)*	*74 (66.67)*	*23 (20.72)*	*14 (12.61)*
2013-2014	*60 (48.00)*	*65 (52.00)*	*0 (0.00)*	*90 (72.00)*	*27 (21.60)*	*8 (6.40)*	*12 (9.60)*	*113 (90.40)*	*0 (0.00)*	*70 (56.00)*	*30 (24.00)*	*25 (20.00)*	*78 (62.40)*	*38 (30.40)*	*9 (7.20)*
2014-2015	*64 (51.20)*	*61 (48.80)*	*0 (0.00)*	*91 (72.80)*	*21 (16.80)*	*13 (10.40)*	*24 (19.20)*	*101 (80.80)*	*0 (0.00)*	*65 (52.00)*	*36 (28.80)*	*24 (19.20)*	*87 (69.60)*	*25 (20.00)*	*13 (10.40)*
2015-2016	*56 (44.44)*	*70 (55.56)*	*0 (0.00)*	*66 (52.38)*	*49 (38.89)*	*11 (8.73)*	*35 (27.78)*	*91 (72.22)*	*0 (0.00)*	*64 (50.79)*	*30 (23.81)*	*32 (25.40)*	*45 (35.71)*	*71 (56.35)*	*10 (7.94)*
Panel B: Islamic Banks															
2006-2007	*7 (50.00)*	*7 (50.00)*	*0 (0.00)*	*12 (85.71)*	*1 (7.14)*	*1 (7.14)*	*0 (0.00)*	*14 (100.00)*	*0 (0.00)*	*10 (71.43)*	*1 (7.14)*	*3 (21.43)*	*7 (50.00)*	*6 (42.86)*	*1 (7.14)*
2007-2008	*9 (56.25)*	*7 (43.75)*	*0 (0.00)*	*5 (31.25)*	*7 (43.75)*	*4 (25.00)*	*5 (31.25)*	*11 (68.75)*	*0 (0.00)*	*4 (25.00)*	*6 (37.50)*	*6 (37.50)*	*5 (31.25)*	*7 (43.75)*	*4 (25.00)*
2008-2009	*11 (50.00)*	*11 (50.00)*	*0 (0.00)*	*12 (54.55)*	*3 (13.64)*	*7 (31.82)*	*6 (27.27)*	*16 (72.73)*	*0 (0.00)*	*10 (45.45)*	*2 (9.09)*	*10 (45.45)*	*6 (27.27)*	*8 (36.36)*	*8 (36.36)*
2009-2010	*13 (56.52)*	*10 (43.48)*	*0 (0.00)*	*6 (26.09)*	*12 (52.17)*	*5 (21.74)*	*21 (91.30)*	*2 (8.70)*	*0 (0.00)*	*4 (17.39)*	*10 (43.48)*	*9 (39.13)*	*9 (39.13)*	*9 (39.13)*	*5 (21.74)*
2010-2011	*12 (54.55)*	*10 (45.45)*	*0 (0.00)*	*13 (59.09)*	*3 (13.64)*	*6 (27.27)*	*5 (22.73)*	*17 (77.27)*	*0 (0.00)*	*9 (40.91)*	*2 (9.09)*	*11 (50.00)*	*9 (40.91)*	*7 (31.82)*	*6 (27.27)*
2011-2012	*21 (72.41)*	*8 (27.59)*	*0 (0.00)*	*7 (24.14)*	*14 (48.28)*	*8 (27.59)*	*24 (82.76)*	*5 (17.24)*	*0 (0.00)*	*7 (24.14)*	*8 (27.59)*	*14 (48.28)*	*5 (17.24)*	*16 (55.17)*	*8 (27.59)*
2012-2013	*11 (42.31)*	*15 (57.69)*	*0 (0.00)*	*15 (57.69)*	*6 (23.08)*	*5 (19.23)*	*8 (30.77)*	*18 (69.23)*	*0 (0.00)*	*7 (26.92)*	*10 (38.46)*	*9 (34.62)*	*16 (61.54)*	*5 (19.23)*	*5 (19.23)*
2013-2014	*16 (66.67)*	*8 (33.33)*	*0 (0.00)*	*15 (62.50)*	*6 (25.00)*	*3 (12.50)*	*6 (25.00)*	*18 (75.00)*	*0 (0.00)*	*13 (54.17)*	*4 (16.67)*	*7 (29.17)*	*16 (66.67)*	*4 (16.67)*	*4 (16.67)*
2014-2015	*12 (60.00)*	*8 (40.00)*	*0 (0.00)*	*0 (0.00)*	*13 (65.00)*	*7 (35.00)*	*18 (90.00)*	*2 (10.00)*	*0 (0.00)*	*2 (10.00)*	*8 (40.00)*	*10 (50.00)*	*0 (0.00)*	*13 (65.00)*	*7 (35.00)*
2015-2016	*13 (65.00)*	*7 (35.00)*	*0 (0.00)*	*5 (25.00)*	*10 (50.00)*	*5 (25.00)*	*17 (85.00)*	*3 (15.00)*	*0 (0.00)*	*3 (15.00)*	*6 (30.00)*	*11 (55.00)*	*7 (35.00)*	*8 (40.00)*	*5 (25.00)*
Panel C: Conventional Banks															
2006-2007	*27 (38.57)*	*43 (61.43)*	*0 (0.00)*	*20 (28.57)*	*48 (68.57)*	*2 (2.86)*	*37 (52.86)*	*33 (47.14)*	*0 (0.00)*	*28 (40.00)*	*31 (44.29)*	*11 (15.71)*	*26 (37.14)*	*43 (61.43)*	*1 (1.43)*
2007-2008	*39 (52.70)*	*34 (45.95)*	*1 (1.35)*	*33 (44.59)*	*39 (52.70)*	*2 (2.70)*	*32 (43.24)*	*42 (56.76)*	*0 (0.00)*	*41 (55.41)*	*21 (28.38)*	*12 (16.22)*	*16 (21.62)*	*56 (75.68)*	*2 (2.70)*
2008-2009	*43 (53.75)*	*36 (45.00)*	*1 (1.25)*	*69 (86.25)*	*9 (11.25)*	*2 (2.50)*	*1 (1.25)*	*79 (98.75)*	*0 (0.00)*	*50 (62.50)*	*14 (17.50)*	*16 (20.00)*	*66 (82.50)*	*12 (15.00)*	*2 (2.50)*
2009-2010	*19 (22.35)*	*66 (77.65)*	*0 (0.00)*	*19 (22.35)*	*64 (75.29)*	*2 (2.35)*	*62 (72.94)*	*23 (27.06)*	*0 (0.00)*	*21 (24.71)*	*45 (52.94)*	*19 (22.35)*	*23 (27.06)*	*59 (69.41)*	*3 (3.53)*
2010-2011	*40 (47.06)*	*45 (52.94)*	*0 (0.00)*	*32 (37.65)*	*48 (56.47)*	*5 (5.88)*	*50 (58.82)*	*35 (41.18)*	*0 (0.00)*	*41 (48.24)*	*24 (28.24)*	*20 (23.53)*	*18 (21.18)*	*62 (72.94)*	*5 (5.88)*
2011-2012	*34 (36.96)*	*58 (63.04)*	*0 (0.00)*	*52 (56.52)*	*32 (34.78)*	*8 (8.70)*	*16 (17.39)*	*76 (82.61)*	*0 (0.00)*	*49 (53.26)*	*24 (26.09)*	*19 (20.65)*	*45 (48.91)*	*40 (43.48)*	*7 (7.61)*
2012-2013	*30 (34.88)*	*56 (65.12)*	*0 (0.00)*	*60 (69.77)*	*24 (27.91)*	*2 (2.33)*	*6 (6.98)*	*80 (93.02)*	*0 (0.00)*	*55 (63.95)*	*22 (25.58)*	*9 (10.47)*	*59 (68.60)*	*18 (20.93)*	*9 (10.47)*
2013-2014	*44 (43.56)*	*57 (56.44)*	*0 (0.00)*	*75 (74.26)*	*21 (20.79)*	*5 (4.95)*	*6 (5.94)*	*95 (94.06)*	*0 (0.00)*	*58 (57.43)*	*25 (24.75)*	*18 (17.82)*	*62 (61.39)*	*34 (33.66)*	*5 (4.95)*
2014-2015	*52 (49.52)*	*53 (50.48)*	*0 (0.00)*	*90 (85.71)*	*9 (10.59)*	*6 (5.71)*	*6 (5.71)*	*99 (94.29)*	*0 (0.00)*	*63 (60.00)*	*27 (25.71)*	*15 (14.29)*	*87 (82.86)*	*12 (11.43)*	*6 (5.71)*
2015-2016	*43 (40.57)*	*63 (59.43)*	*0 (0.00)*	*61 (57.55)*	*39 (36.79)*	*6 (5.66)*	*18 (16.98)*	*88 (83.02)*	*0 (0.00)*	*61 (57.55)*	*24 (22.64)*	*21 (19.81)*	*38 (35.85)*	*63 (59.43)*	*5 (4.72)*

Note: Productivity Growth: TFPCH>1, Productivity Loss: TFPCH<1, Productivity Stagnation: TFPCH=1, Technological Progress: TECHCH>1, Technological Regress: TECHCH<1, Technological Stagnation: TECHCH=1; Efficiency, Pure Technical and Scale Increase: EFFCH, PTECH and SECH>1, Efficiency, Pure Technical and Scale Decrease: EFFCH, PTECH and SECH<1, No Change in Efficiency, Pure Technical and Scale: EFFCH, PTECH and SECH=1.

Univariate Parametric and Nonparametric Tests

Table 4.3 shows the results of the parametric t-test and nonparametric Mann-Whitney (Wilcoxon) test on both Islamic and conventional banks in Malaysia, Indonesia, Brunei and Singapore. The results from the parametric t-test suggest that the Islamic banks have exhibited a higher TFPCH compared to the conventional banks (1.094 > 0.961). This result is significant at the 1% level. The nonparametric Mann-Whitney (Wilcoxon) and Kruskal-Wallis tests also yield similar results. This might be because the TECHCH index of Islamic banks has a higher mean than conventional banks (1.073 > 0.842); this is significantly different at the 1% level in both parametric and nonparametric tests. However, both tests reveal that EFFCH is significantly lower in Islamic banks compared to conventional banks (1.100 < 1.457) and is statistically significant at the 1% level. This shows that Islamic banks were more technologically progressive than managerially during the period of study. The findings also exhibit that conventional banks have a higher mean for PTECH, which is significantly different at the 1% level (1.207 > 1.076). SECH shows that conventional banks have a higher mean, but this result is significantly different only on parametric t-test. This indicates that conventional banks are good in terms of managerial efficiency and have been operating at the optimal scale of operations over the period of observation.

Table 4.3: Summary of Parametric and Nonparametric Tests on Islamic and Conventional Banks

Individual tests	Test groups					
	Parametric test		Nonparametric tests			
	t-test *t (Prb>t)*		Mann-Whitney (Wilcoxon Rank-Sum) test *Z (Prb>z)*		Kruskal-Wallis Equality of Population test x^2 *(Prb > x^2)*	
Test statistics	Mean	*t*	Mean rank	*z*	Mean rank	x^2
TFPCH						
Islamic	1.094	5.061***	645.07	-4.880***	645.07	23.819***
Conventional	0.961		527.39		527.39	
TECHCH						
Islamic	1.073	7.138***	695.83	-7.500***	695.83	56.254***
Conventional	0.842		514.99		514.99	
EFFCH						
Islamic	1.100	-6.114***	498.01	-2.709***	498.01	7.341***
Conventional	1.457		563.33		563.33	
PECH						
Islamic	1.076	-3.479***	483.85	-3.460***	483.85	11.973***
Conventional	1.207		566.79		566.79	

SECH						
Islamic	1.032	5.120***	528.33	-1.145	528.33	1.310
Conventional	1.306		555.92		555.92	

Note: *** indicate significance at the 1% levels

Determinants of Productivity Level in Islamic and Conventional Banks

In Tables 4.4 and 4.5, we have set Model 1 as a baseline regression model, which includes bank-specific determinant variables, namely size of bank (lnTA), asset quality (lnLLRGL), capitalization levels (lnETA), market power (lnBDTD), liquidity (lnLOANSTA) and management efficiency (lnNIETA). In Model 2, we included macroeconomic variables such as economic growth (lnGDP), inflation rate (lnCPI) and global financial crisis (GFC), along with the bank-specific characteristic variables. This is followed by Models 3 to 8, which represent all six country governance determinant variables, which will be explained in the following section. The estimated models allow us to identify the potential determinants of Islamic and conventional banks' total factor productivity level. In the preliminary stage, the results from Tables 4.4 and 4.5 show that the pooled data are most suitable to be used in this study because the p-value of the Breusch Pagan and Lagrangian Multiplier (BP and LM) Chi-Square (X^2) test is not significant at the 5% level or lower. Except for Model 5 of Table 4.4, the test is significant at 5% for Islamic parts only. Therefore, panel data will be suitable for that particular model.

Tables 4.4 and 4.5, the credit risk (lnLLRGL) has a positive relationship with TFPCH levels only for Islamic banks, significant at the 1% level in all regression models. This indicates that higher credit risk leads to higher levels of productivity for banks. Therefore, to maximize long-run profits, Islamic banks may have rationally chosen to have lower costs in the short run by skimping on the resources that are devoted to underwriting and monitoring loans. However, they would bear the consequences of greater problems with loan performance in the future. Previous studies by Sufian *et al*. (2016) and Sufian and Kamarudin (2015) also found that there is a positive relationship between credit risk and the efficiency of banks.

Likewise in Tables 4.4, the coefficient of the capitalization (lnETA) level to be positive in Islamic banks (Models 3,4,5,7 and 8) because well capitalized banks leads to more productivity in banking services. Strong capital structure is essential for banks in developing economies, since it provides additional strength to withstand financial crises and increased safety for depositors during unstable macroeconomic conditions. However, lnETA shown a negative relationship with conventional banks productivity (Table 4.5, Models 6 and 7). Under *ceteris paribus* assumption, these results seem to suggest that conventional banks tend to keep more equity compared with their peers. This situation also describes that the bank with lower capital ratios will lead to higher leverage and risk as well as greater borrowing cost. Therefore, the results imply that Islamic banks may have been involved in riskier business operations or investment strategies.

Turning to the impact of the market power (lnBDTD), it exhibits a significantly negative sign for the Islamic banks' productivity level. The negative relationship between market power and level of total factor productivity change shows that small market share may contribute to higher TFPCH levels. This might be due to maintaining lower costs because enlarging and maintaining market share may involve extra cost and inputs. This situation also indicates that managers will lower their efforts to maximize banks' efficiency once they obtain greater market power: They feel less pressure to keep costs down in a less-competitive market (Kamarudin *et al*., 2017 and Sufian and Noor, 2009). lnBDTD has positive sign but only significant at 10% level in conventional banks.

Furthermore, the empirical findings of the proxy measure for liquidity (lnLOANSTA) have consistently shown a positive relationship with banks' TFPCH levels under all Islamic and conventional regression models. The results are statistically significant at the 1% level for all Islamic bank models and a minimum of the 5% level in every regression model estimated for

their conventional counterparts. The positive sign strongly suggests that banks with greater liquidity tend to perform at higher productivity levels. This could be due to higher liquidity motivating banks to extend more loans; hence, more profit could be acquired. In addition, poor asset quality and lower liquidity are the main factors in bank failure. Therefore, banks' deposit resources were effectively managed to improve the quantity of loans, which leads to higher productivity levels.

Concerning the impact of management efficiency (lnNIETA) on banks' total factor productivity level, lnNIETA was observed to have a significant negative relationship with productivity level for Islamic banks. This indicates that higher (lower) overhead expenses lead to lower (higher) TFPCH levels. Efficient managers control expenses (low cost) to improve the quality of the bank. This improves productivity level and contributes to higher profitability. This finding implies that poor management generates a negative relationship between bank overhead expenses and TFPCH levels. Poor management, overstaffing and overlapping tasks may deteriorate the banks' productivity. Technology adaptations such as automated teller machines (ATMs) and other automated means of delivering services can reduce overhead costs and increase the banks' productivity. The empirical findings by Sufian and Noor (2009) also acknowledged that quality management will increase profits by minimizing operating costs. On the other hand, lnNIETA has a significant positive relationship with productivity level for conventional banks, but this is only significant in Model 1 at the 10% level. This indicates that increases in operating expenses (such as staff costs, general and administrative costs and other expenses) contribute to the banks' increase in productivity level.

The empirical findings in Table 4.4 (Models 3,4,5,7 and 8) show that the positive sign and significant at 1% level of lnGDP in Islamic banks. That signifies the favourable economic conditions during the study period have fuelled higher demand for Islamic banking products and services, reducing default loan probabilities and thus increasing the profitability of the Islamic banks. High economic growth motivates Islamic banks to serve more loans and improve the quality of their assets.

The impacts of inflation (lnCPI) is statistically significant at 1% level for Islamic banks almost to all estimation models except Model 6 (Table 4.4) but is not significant for conventional banks. We find that lnCPI exerts a negative impact on the TFPCH levels of Islamic banks, indicating that higher inflation rates will lead to lower performance. This could be because management failed to forecast the future inflation (unanticipated inflation) and make adjustments to the costs accordingly, leading costs to rise faster than revenue. Therefore, banks will incur higher operating costs and face declining profits. Furthermore, high-risk borrowers who tend to default on their loans will enter the market during the inflation period. This will cause banks to limit the quantity of loans provided and charge higher interest, which then causes low-risk borrowers to exit the market and discourages productive investments (Kamarudin *et al.*, 2017; Sufian and Habibullah, 2014; Muda *et al.*, 2013).

Finally, all regression models indicate that the global financial crisis (GFC) has a significantly positive relationship with TFPCH levels in the overall view of Islamic and conventional banking sectors. This shows that both banks types tend to perform well with the increased productivity level during the crisis period. This could be because the banks are well managed and remained stable during the crisis. Higher risk-taking investment will be associated with higher leverage. Therefore, banks with smaller investment portfolios will have lower liquidity risk, leading to better productivity during the crisis.

Impact of Country Governance on Banks' Productivity

Moving forward to analyze the third objective of this study, the impact of country governance on the TFPCH levels of Islamic and conventional banks has been examined (Tables 4.4 and 4.5). The empirical findings suggest that voice and accountability (lnVA) has a positive relationship with TFPCH levels for both Islamic and conventional banks and is statistically significant at the 1% level. This indicates that greater voice and accountability leads to higher productivity level. This could be due to the citizens and state institutions playing their role to promote democracy and eliminate poverty, which tends to improve the performance of banks. According to Tembo (2012), the theory of change indicates that the participation of citizen in voice and accountability can assist in avoiding undesired results. Therefore, greater freedom given to the citizens in the government selection process tends to increase banks' productivity. The results are consistent with other findings by Kamarudin *et al.* (2016), Chortareas *et al.* (2012), Lin *et al.* (2010) and Lensink *et al.* (2008).

The positive sign of lnRQ indicates that higher-quality regulation leads to the higher TFPCH levels in conventional banks and should be interpreted with caution as the coefficient of the variable is statistically significant only at 10% level. The findings suggest that governments have implemented and formulated sound regulation and policies that encourage the development of conventional banks with higher productivity levels. This shows that the quality of regulation in this country produces professional handling of the bureaucracy that influences the improvement of productivity in conventional banks. The findings are in line with studies conducted by Kamarudin *et al.* (2016), Beltratti and Stulz (2009) and Lin *et al.* (2010), who stated that better regulatory quality will lead to better bank performance.

Furthermore, it can be observed from Models 4, 5, 7 and 8 in Table 4.4 that the variables of political stability and absence of violence (lnPV), government effectiveness (lnGE) and rule of law (lnRL) have a significant negative relationship with Islamic banks at the 1% level, and control of corruption (lnCC) is significantly negative at the 5% level. Kamarudin *et al.* (2016) also suggested a negative relationship between these variables and banks' efficiency.

Referring to the proxy measure of lnPV, the negative sign indicates that political stability and freedom from violence and terrorism contribute to lower productivity levels in Islamic banks. This might be because an excessively stable political environment could be harmful for growth. The theory of public policy and regulation argues that politicians do not maximize the country's social welfare but they are more interested in maximizing their own private welfare (Becker, 1983). Hence, if politicians have the power to discipline non-compliant banks, they will benefit by distracting the credit flow of other banks and sanction the banks that are politically connected. In the process, the politicians may exercise their power to optimize private interest and fail to discipline the non-compliant banks and improve banks' total factor productivity level.

The negative relationship between lnGE implies that the higher credibility and quality of the government's commitment to policies that are beneficial to the public will lead to lower TFPCH levels for the Islamic banks. Stevens and Cooper (2010) suggested that government actions and policies that exhibit higher levels of commitment will lead to efficiency. However, this study discovers that the quality of government policies does not contribute to higher TFPCH levels. The government's taxation policies are a plausible reason for this situation because a higher corporate income tax rate charged to banks will lead to a higher interest rate applied on

loans. This will reduce the banks' lending activities and net interest margin because borrowers will be unable to pay the higher interest charges (Kamarudin *et al.*, 2016). Hence, this will lead to poor demand for bank services, which will contribute to lower bank productivity levels.

Turning to the impact of lnRL on the Islamic banks' productivity level, the negative sign suggests that higher-quality rule of law contributes to the banks' lower TFPCH levels. The theory of judicial behavior suggests that the quality of judicial behavior that is produced by quality rule of law may drive economic efficiency (Sherwood *et al.*, 1994). However, strict rules will place high restrictions on banking activities, which reduces banks' performance (Chen, 2009). In addition, severe rulings can harm the stability of the banking system because these rulings can reduce banks' charter value and expose banks to an increase in risk-taking activities. Therefore, the lower productivity levels among Islamic banks could be caused by the increase in cost of intermediation and increased risk-taking and restrict bank activities, all of which are directly influenced by an excessively strict judiciary system.

On the other hand, the proxy measures of rule of law (lnRL) and regulatory quality (lnRQ) are positively related to the total factor productivity level of the conventional banks, although the results are only statistically significant at the 10% level. The positive impact of lnRL on the conventional banks' productivity indicates that higher quality of rule of law leads to higher productivity levels of the conventional banks. Respect for order and law, effectiveness of the judiciary system and enforceability of contracts comprise better-quality rule of law in a country. This shall be beneficial to the conventional banks in terms of reducing the uncertainty and risk of conducting and starting businesses and increasing private-sector investments, which subsequently improves the banks' productivity levels and strengthen the market. The positive sign of lnRQ indicates that higher-quality regulation leads to the higher TFPCH levels in conventional banks. The findings suggest that governments have implemented and formulated sound regulation and policies that encourage the development of conventional banks with higher productivity levels. This shows that the quality of regulation in this country produces professional handling of the bureaucracy that influences the improvement of productivity in conventional banks. The findings are in line with studies conducted by Kamarudin *et al.* (2016), Beltratti and Stulz (2009) and Lin *et al.* (2010), who stated that better regulatory quality will lead to better bank performance.

Finally, the negative relationship between the impact of control of corruption (lnCC) and the change in Islamic banks' total factor productivity levels states that greater control of corruption reduces the banks' productivity levels. The theory of supervision indicates that a powerful supervisory agency that directly disciplines and monitors banks may improve the efficiency of the banking industry by reducing corruption in bank lending (Beck et al., 2006). Nevertheless, this study suggests that powerful supervisors or regulators will focus on supporting their private interest rather than focus on overcoming market failure. The regulators may use their excessive power for the benefit of favored constituents, attracting campaign donations and corruption (Barth *et al.*, 2013). In addition, the restrictions might limit the development of banks in terms of providing efficient service to customers, processing firm information and building reputational capital. Hence, stringent control over banks leads to tighter restrictions on bank operations and tends to lower Islamic banks' productivity level.

Table 4.4: Regression Results on Islamic Banks: All Countries

Variable	Model 1			Model 2			Model 3			Model 4		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	**-2.073*** **	**-4.076*** **	**-2.073** **	**-2.578*** **	**-4.229*** **	**-2.578*** **	**0.798*** **	**-4.341*** **	**-2.823*** **	**1.073*** **	**-4.268*** **	**-2.552*** **
	(0.652)	(1.136)	(0.978)	(0.676)	(0.725)	(0.940)	(0.076)	(0.804)	(1.027)	(0.12)	(1.090)	(0.939)
Bank-Specific Variables												
lnTA	**0.004**	**0.086*** **	**0.004**	**0.010**	**0.087*** **	**0.010**	**-0.001**	**0.087*** **	**0.011**	**0.001**	**0.088*** **	**0.010**
	(0.018)	(0.024)	(0.037)	(0.018)	(0.032)	(0.034)	(0.001)	(0.032)	(0.034)	(0.001)	(0.026)	(0.034)
lnLLRGL	**0.239*** **	**0.174*** **	**0.239*** **	**0.215*** **	**0.177*** **	**0.215*** **	**0.007**	**0.181*** **	**0.215*** **	**0.010**	**0.177*** **	**0.219*** **
	(0.069)	(0.060)	(0.076)	(0.069)	(0.064)	(0.068)	(0.008)	(0.067)	(0.068)	(0.007)	(0.059)	(0.069)
lnETA	**-0.052**	**-0.251**	**-0.052**	**-0.038**	**-0.261**	**-0.038**	**0.005*** **	**-0.259**	**-0.028**	**0.007*** **	**-0.269**	**-0.041**
	(0.074)	(0.213)	(0.068)	(0.073)	(0.243)	(0.054)	(0.002)	(0.242)	(0.055)	(0.002)	(0.212)	(0.054)
lnBDTD	**-0.072** **	**-0.096** **	**-0.072* **	**-0.094*** **	**-0.098**	**-0.094** **	**-0.001**	**-0.102**	**-0.097** **	**-0.004**	**-0.101** **	**-0.095** **
	(0.028)	(0.040)	(0.042)	(0.028)	(0.078)	(0.042)	(0.008)	(0.082)	(0.043)	(0.007)	(0.042)	(0.042)
lnLOANSTA	**0.531*** **	**0.769*** **	**0.531** **	**0.621*** **	**0.789*** **	**0.621*** **	**0.002**	**0.799*** **	**0.644*** **	**0.002**	**0.804*** **	**0.622*** **
	(0.148)	(0.262)	(0.226)	(0.151)	(0.254)	(0.226)	(0.002)	(0.258)	(0.229)	(0.001)	(0.253)	(0.227)
lnNIETA	**-0.252** **	**0.160**	**-0.252* **	**-0.259*** **	**0.144**	**-0.259* **	**-0.026*** **	**0.133**	**-0.255* **	**-0.031*** **	**0.135**	**-0.272* **
	(0.100)	(0.122)	(0.148)	(0.099)	(0.163)	(0.142)	(0.007)	(0.166)	(0.140)	(0.006)	(0.136)	(0.146)
Macroeconomic Variables												
lnGDP				**0.177* **	**0.075**	**0.177** **	**0.029*** **	**0.091**	**0.188** **	**0.022*** **	**0.081**	**0.195** **
				(0.098)	(0.060)	(0.075)	(0.007)	(0.059)	(0.076)	(0.007)	(0.063)	(0.076)
lnCPI				**-0.288** **	**-0.058379**	**-0.288*** **	**-0.025*** **	**-0.057**	**-0.259*** **	**-0.021*** **	**-0.071**	**-0.329*** **
				(0.111)	(0.117)	(0.101)	(0.007)	(0.116)	(0.099)	(0.006)	(0.105)	(0.111)
GFC				**0.287** **	**0.179** **	**0.287*** **	**0.163*** **	**0.184*** **	**0.285*** **	**0.122*** **	**0.183** **	**0.302*** **
				(0.142)	(0.070)	(0.095)	0.026	(0.062)	(0.091)	(0.019)	(0.082)	(0.101)
Country Governance Variables												
lnVA							**0.200*** **	**-0.075**	**-0.083**			
							(0.067)	(0.073)	(0.086)			
lnPV										**-0.102*** **	**-0.058** **	**-0.039**
										(0.036)	(0.023)	(0.029)
lnGE												
lnRQ												
lnRL												
lnCC												
R^2	0.102	0.382	0.102	0.136	0.388	0.136	0.157	0.389	0.138	0.165	0.391	0.138
Adj R^2	0.077	0.265	0.077	0.099	0.259	0.099	0.116	0.256	0.096	0.124	0.259	0.097
F-statistic	4.031***	3.252***	4.031***	3.663***	3.017***	3.663***	3.818***	2.936***	3.334***	4.040***	2.967***	3.349***
BP & LM x^2	-	3.090*		-	2.970*		-	3.510*		-	2.670	
Hausman x^2	-	61.839***		-	57.119***		-	57.613***		-	57.548***	
No. of Obs.	220	220	220	220	220	220	220	220	220	220	220	220

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.4: Continued

Variable	Model 5			Model 6			Model 7			Model 8		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	-2.748***	1.113***	-2.748**	-2.688***	-4.249***	-2.688**	1.038***	-4.271***	-2.676***	0.952***	-4.321***	-2.680*
	(0.694)	(0.082)	(1.353)	(0.682)	(1.132)	(1.345)	-(0.125)	(1.109)	(0.952)	(0.102)	(1.142)	(1.366)
Bank-Specific Variables												
lnTA	0.013	0.001	0.013	0.011	0.088***	0.011	-0.001	0.089***	0.011	0.001	0.090***	0.011
	(0.018)	(0.001)	(0.024)	(0.018)	(0.027)	(0.024)	-(0.001)	(0.027)	(0.034)	(0.001)	(0.027)	(0.024)
lnLLRGL	0.203***	0.015**	0.203*	0.202***	0.178***	0.202*	0.01	0.179***	0.205***	0.010	0.174***	0.203*
	(0.069)	(0.008)	(0.117)	(0.069)	(0.060)	(0.116)	-(0.008)	(0.060)	(0.070)	(0.007)	(0.060)	(0.112)
lnETA	-0.029	0.005***	-0.029	-0.037	-0.262	-0.037	0.006***	-0.265	-0.033	0.007***	-0.256	-0.047
	(0.074)	(0.002)	(0.094)	(0.073)	(0.214)	(0.095)	-(0.002)	(0.214)	(0.055)	(0.002)	(0.214)	(0.097)
lnBDTD	-0.097***	-0.006	-0.097	-0.095***	-0.098**	-0.095	-0.004	-0.099**	-0.095**	-0.004	-0.098**	-0.097
	(0.029)	(0.013)	(0.067)	(0.028)	(0.042)	(0.066)	-(0.007)	(0.042)	(0.041)	(0.007)	(0.041)	(0.067)
lnLOANSTA	0.636***	0.001	0.636*	0.629***	0.792***	0.629*	0.002	0.794***	0.628***	0.002*	0.792***	0.635*
	(0.151)	(0.002)	(0.372)	(0.151)	(0.255)	(0.369)	-(0.001)	(0.254)	(0.223)	(0.001)	(0.254)	(0.372)
lnNIETA	-0.229**	-0.039***	-0.229*	-0.223**	0.144	-0.223*	-0.033***	0.146	-0.235	-0.028***	0.157	-0.231*
	(0.104)	(0.011)	(0.136)	(0.105)	(0.135)	(0.132)	-(0.007)	(0.135)	(0.145)	(0.006)	(0.138)	(0.130)
Macroeconomic Variables												
lnGDP	0.135	0.047***	0.135*	0.139	0.074	0.139*	0.027***	0.067	0.149*	0.026***	0.066	0.138
	(0.105)	(0.011)	(0.081)	(0.103)	(0.065)	(0.079)	-(0.006)	(0.063)	(0.081)	(0.007)	(0.066)	(0.084)
lnCPI	-0.207	-0.042***	-0.207**	-0.207	-0.056	-0.207***	-0.024***	-0.053	-0.226*	-0.020***	-0.041	-0.203***
	(0.135)	(0.008)	(0.081)	(0.132)	(0.105)	(0.076)	-(0.005)	(0.102)	(0.116)	(0.006)	(0.108)	(0.076)
GFC	0.244*	0.261***	0.244**	0.268*	0.173*	0.268***	0.142***	0.164**	0.262***	0.127***	0.148	0.270***
	(0.147)	(0.061)	(0.103)	(0.142)	(0.090)	(0.101)	-(0.018)	(0.079)	(0.096)	(0.022)	(0.093)	(0.094)
Country Governance Variables												
lnVA												
lnPV												
lnGE	0.075	-0.111***	0.075*									
	(0.071)	(0.038)	(0.044)									
lnRQ				0.077	-0.018	0.077*						
				(0.068)	(0.108)	(0.041)						
lnRL							-0.107***	-0.087	0.059			
							-(0.038)	(0.132)	(0.063)			
lnCC										-0.083**	-0.084	0.100*
										(0.035)	(0.097)	(0.058)
R^2	0.140	0.126	0.140	0.141	0.388	0.141	0.167	0.388	0.138	0.160	0.389	0.142
Adj R^2	0.099	0.083	0.099	0.100	0.255	0.100	0.126	0.256	0.097	0.120	0.256	0.101
F-statistic	3.411***	2.943***	3.411***	3.429***	2.924***	3.429***	4.100***	2.932***	3.354***	3.918***	2.933***	3.473***
BP & LM x^2	-	3.930**		-	3.830*		-	3.610*		-	3.590*	
Hausman x^2	-	56.367***		-	55.697***		-	56.777***		-	55.135***	
No. of Obs.	220	220	220	220	220	220	220	220	220	220	220	220

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.5: Regression Results on Conventional Banks: All Countries

Variable	Model 1			Model 2			Model 3			Model 4		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM

Constant	**-0.394****	**0.052**	**-0.394****	**-0.376**	**0.129**	**-0.376**	**-0.068**	**0.121**	**-0.068**	**-0.385**	**0.224**	**-0.385**
	(0.198)	(0.255)	(0.196)	(0.246)	(0.280)	(0.232)	(0.265)	(0.281)	(0.245)	(0.250)	(0.276)	(0.235)
Bank-Specific Variables												
lnTA	**-0.003**	**-0.007****	**-0.003**	**0.002**	**-0.003**	**0.003**	**-0.004**	**-0.002**	**-0.004**	**0.003**	**-0.010****	**0.003**
	(0.004)	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)	(0.005)	(0.004)
lnLLRGL	**-0.002**	**0.024**	**-0.002**	**-0.009**	**0.009**	**-0.009**	**0.003**	**0.008**	**0.003**	**-0.009**	**0.015**	**-0.009**
	(0.019)	(0.029)	(0.020)	(0.019)	(0.027)	(0.019)	(0.020)	(0.027)	(0.020)	(0.019)	(0.030)	(0.019)
lnETA	**-0.034**	**-0.086**	**-0.034**	**-0.030**	**-0.083**	**-0.030**	**-0.050**	**-0.080**	**-0.050**	**-0.031**	**-0.099**	**-0.031**
	(0.038)	(0.062)	(0.035)	(0.038)	(0.069)	(0.035)	(0.039)	(0.070)	(0.035)	(0.039)	(0.063)	(0.035)
lnBDTD	**0.020**	**-0.019**	**0.020**	**0.023**	**-0.007**	**0.023**	**0.007**	**-0.005**	**0.007**	**0.024**	**0.002**	**0.024**
	(0.040)	(0.046)	(0.040)	(0.040)	(0.049)	(0.040)	(0.040)	(0.048)	(0.040)	(0.040)	(0.044)	(0.040)
lnLOANSTA	**0.070****	**0.039**	**0.070****	**0.065****	**0.036**	**0.065****	**0.057***	**0.035**	**0.057***	**0.066****	**0.025**	**0.066****
	(0.031)	(0.051)	(0.030)	(0.031)	(0.054)	(0.030)	(0.031)	(0.054)	(0.030)	(0.031)	(0.043)	(0.030)
lnNIETA	**0.047***	**-0.002**	**0.047***	**0.047**	**-0.010**	**0.047**	**0.022**	**-0.012**	**0.022**	**0.049**	**-0.016**	**0.049**
	(0.027)	(0.060)	(0.027)	(0.029)	(0.054)	(0.029)	(0.030)	(0.054)	(0.030)	(0.030)	(0.052)	(0.030)
Macroeconomic Variables												
lnGDP				**-0.047**	**-0.035**	**-0.047**	**-0.073**	**-0.035**	**-0.073**	**-0.048**	**-0.046**	**-0.048**
				(0.075)	(0.054)	(0.063)	(0.075)	(0.054)	(0.062)	(0.075)	(0.061)	(0.063)
lnCPI				**0.007**	**-0.056***	**0.007**	**-0.050**	**-0.055***	**-0.050**	**0.013**	**-0.029**	**0.013**
				(0.047)	(0.032)	(0.045)	(0.051)	(0.033)	(0.049)	(0.058)	(0.055)	(0.055)
GFC				**0.140****	**0.159*****	**0.140*****	**0.140****	**0.153*****	**0.140*****	**0.139****	**0.154*****	**0.139*****
				(0.068)	(0.044)	(0.051)	(0.067)	(0.045)	(0.051)	(0.068)	(0.052)	(0.052)
Country Governance Variables												
lnVA							**0.354*****	**-0.181**	**0.354*****			
							(0.117)	(0.250)	(0.106)			
lnPV										**0.012**	**0.227*****	**0.012**
										(0.061)	(0.079)	(0.050)
lnGE												
lnRQ												
lnRL												
lnCC												
R^2	0.014	0.138	0.014	0.023	0.148	0.023	0.032	0.149	0.032	0.023	0.153	0.023
Adj R^2	0.007	-0.016	0.007	0.013	-0.008	0.013	0.022	-0.009	0.022	0.012	-0.004	0.012
F-statistic	2.120**	0.894	2.120**	2.322**	0.947	2.322**	3.026***	0.943	3.026***	2.092**	0.975	2.092**
BP & LM x^2	-	1.840		-	1.400		-	1.860		-	1.440	
Hausman x^2	-	9.529		-	11.357		-	14.948		-	17.475*	
No. of Obs.	917	917	917	917	917	917	917	917	917	917	917	917

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.5: Continued

Variable	Model 5			Model 6			Model 7			Model 8		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	**-0.293**	**0.215**	**-0.293**	**-0.177**	**0.807****	**-0.366**	**-0.180**	**0.755****	**-0.358**	**-0.365**	**0.238**	**-0.365**
	(0.254)	(0.346)	(0.279)	(0.130)	(0.317)	(0.232)	(0.129)	(0.318)	(0.233)	(0.247)	(0.324)	(0.233)
Bank-Specific Variables												
lnTA	**0.001**	**-0.008***	**0.001**	**0.001**	**-0.021*****	**0.001**	**0.000**	**-0.022*****	**0.001**	**0.001**	**-0.006**	**0.001**
	(0.004)	(0.004)	(0.003)	(0.001)	(0.006)	(0.004)	(0.001)	(0.007)	(0.004)	(0.004)	(0.004)	(0.004)
lnLLRGL	**-0.006**	**0.002**	**-0.006**	**-0.007**	**0.021**	**-0.008**	**-0.007**	**0.010**	**-0.008**	**-0.008**	**0.008**	**-0.008**
	(0.019)	(0.028)	(0.017)	(0.007)	(0.030)	(0.019)	(0.007)	(0.030)	(0.019)	(0.019)	(0.029)	(0.019)
lnETA	**-0.028**	**-0.097**	**-0.028**	**-0.037*****	**-0.116***	**-0.028**	**-0.037*****	**-0.121****	**-0.028**	**-0.028**	**-0.089**	**-0.028**
	(0.039)	(0.062)	(0.035)	(0.012)	(0.062)	(0.035)	(0.012)	(0.063)	(0.035)	(0.039)	(0.068)	(0.035)
lnBDTD	**0.016**	**0.001**	**0.016**	**0.025***	**-0.006**	**0.021**	**0.026***	**0.002**	**0.020**	**0.021**	**-0.009**	**0.021**
	(0.040)	(0.045)	(0.049)	(0.013)	(0.044)	(0.040)	(0.013)	(0.044)	(0.040)	(0.040)	(0.050)	(0.040)
lnLOANSTA	**0.060***	**0.033**	**0.060**	**0.044***	**0.029**	**0.063****	**0.044***	**0.020**	**0.063****	**0.064****	**0.033**	**0.064****
	(0.031)	(0.051)	(0.045)	(0.024)	(0.043)	(0.030)	(0.024)	(0.043)	(0.030)	(0.031)	(0.063)	(0.030)
lnNIETA	**0.030**	**-0.015**	**0.030**	**0.016**	**-0.016**	**0.040**	**0.014**	**-0.021**	**0.039**	**0.041**	**-0.013**	**0.041**
	(0.032)	(0.059)	(0.030)	(0.011)	(0.052)	(0.031)	(0.011)	(0.052)	(0.032)	(0.031)	(0.052)	(0.031)
Macroeconomic Variables												
lnGDP	**-0.031**	**-0.044**	**-0.031**	**-0.026**	**-0.062**	**-0.041**	**-0.024**	**-0.023**	**-0.042**	**-0.044**	**-0.027**	**-0.044**
	(0.076)	(0.098)	(0.047)	(0.027)	(0.060)	(0.063)	(0.027)	(0.060)	(0.063)	(0.075)	(0.049)	(0.062)
lnCPI	**-0.038**	**-0.054**	**-0.038**	**-0.008**	**-0.055**	**-0.011**	**-0.008**	**-0.040**	**-0.015**	**-0.007**	**-0.070****	**-0.007**
	(0.058)	(0.039)	(0.036)	(0.014)	(0.053)	(0.053)	(0.014)	(0.053)	(0.052)	(0.053)	(0.036)	(0.046)
GFC	**0.154****	**0.158*****	**0.154*****	**0.090*****	**0.157*****	**0.145*****	**0.091*****	**0.157*****	**0.146*****	**0.139****	**0.184*****	**0.139*****
	(0.068)	(0.056)	(0.042)	(0.021)	(0.053)	(0.052)	(0.021)	(0.052)	(0.052)	(0.068)	(0.052)	(0.051)
Country Governance Variables												
lnVA												
lnPV												
lnGE	**-0.072**	**0.399****	**-0.072***									
	(0.055)	(0.189)	(0.038)									
lnRQ				**0.020***	**0.390*****	**-0.019**						
				(0.011)	(0.097)	(0.030)						
lnRL							**0.017***	**0.356*****	**-0.021**			
							(0.01)	(0.092)	(0.028)			
lnCC										**-0.016**	**0.057**	**-0.016**
										(0.027)	(0.036)	(0.021)
R^2	0.024	0.151	0.024	0.023	0.159	0.023	0.023	0.163	0.023	0.023	0.149	0.023
Adj R^2	0.014	-0.006	0.014	0.012	0.003	0.012	0.012	0.008	0.012	0.012	-0.008	0.012
F-statistic	2.266**	0.964	2.266**	2.117**	1.021	2.117**	2.133**	1.050	2.133**	2.123**	0.948	2.123**
BP & LM x^2	-	1.250		-	1.370		-	1.350		-	1.290	
Hausman x^2	-	12.797		-	22.401**		-	24.563***		-	14.297	
No. of Obs.	917	917	917	917	917	917	917	917	917	917	917	917

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Robustness Checks: Controlling for Specific Countries

It is important to investigate how different countries react to the same determinants and the effect of country governance. To address this concern, we proceed to remain the determinants variables and interact all six country governance variables against for four countries: Dummy Malaysia (DM), Dummy Indonesia (DI), Dummy Brunei (DM) and Dummy Singapore (DS) in Tables 4.6 to 4.9. In general, the preliminary results are based on the pooled OLS model because all Chi-Square (X^2) values of Breusch Pagan and Lagrangian Multiplier (BP and LM) tests are not significant at the 5% level or lower.

Several general comments regarding the test results are warranted. In general, the results for most variables remains stable across the various regressions tested just several changed. As we move on to controlling for countries, the proxy measure of bank size (lnTA) shows a negative relationship with the conventional banks' TFPCH levels only in Malaysia (Table 4.6b). This relationship is statistically significant at the 1% level, which implies that larger (smaller) banks tend to exhibit lower (higher) productivity levels. This might be because small banks can be more efficient because of their ability to gain economies of scale compared to large banks.

Turning to the impact of credit risk, as expected, the coefficient of lnLLRGL exhibits a significantly negative sign in the Malaysian conventional banking sector (Table 4.6b). The finding shows that conventional banks with higher credit risk tend to exhibit lower productivity levels. As supported by previous study (Sun and Chang, 2011), the negative sign could be due to non-performing loans resulting from failure to recognize and create reserves to write off the impaired assets in the banks. However, in the case of Malaysian Islamic banks the results suggest that the coefficient of lnLLRGL reduce its explanatory power at 10% significant level when we control for Dummy Malaysia (Table 4.6a).

Furthermore, the proxy measure for bank capitalization (lnETA) has consistently shown a significantly negative relationship with banks' TFPCH levels under the Islamic banks in Malaysian (Table 4.6a). Similarly, results in Table 4.9b (Dummy Singapore) for conventional banks also suggest a negative sign. Under *ceteris paribus* assumption, these findings seem to suggest that Malaysian Islamic banks tend to keep more equity compared with their conventional counterparts. Therefore, Islamic banks may have been involved in riskier business operations or investment strategies (Srairi, 2010).

The empirical findings in Tables 4.7a to 4.9b suggest that the coefficients of market power (lnBDTD), liquidity (lnLOANSTA) and management efficiency (lnNIETA) are statistically insignificant under all regression models for the Islamic and conventional banking sector in Indonesia, Brunei and Singapore. Nevertheless, a closer examination of the findings suggests that all coefficients significantly influenced the banks' TFPCH levels when we control for the Malaysian banking sector (Tables 4.6a and 4.6b). The lnBDTD has shown a negative relationship with productivity levels of both Islamic and conventional banks. Meanwhile, the lnLOANSTA and lnNIETA are statistically significant at 1% level in regression models estimated only for conventional banks (Table 4.6b). The results suggest a positive sign with conventional banks' productivity level.

In terms of checking the robustness of the results, we included macroeconomic condition variables as additional control variables. When controlling for all four countries, the empirical findings reveal that the impact of economic growth (lnGDP) and inflation (lnCPI) on the banks' TFPCH levels is insignificant at all levels. Referring to the impact of the global financial crisis (GFC) on the banks' TFPCH levels, the coefficient of the GFC variable exhibits a positive sign

for conventional banks in all regression models, but the results are not statistically significant at any level for Islamic banks.

Turning to the country governance indicators, the findings seem to suggest that all six variables are statistically insignificant when controlling for Indonesia, Brunei and Singapore. Surprisingly, the coefficient of voice and accountability (lnVA) has a positive impact on the TFPCH levels of Malaysian Islamic banks, but it is insignificant for their conventional counterparts. However, the results are only statistically significant at the 10% level in the Malaysian Islamic banking industry.

On the other hand, the coefficients of political stability and absence of violence (lnPV) turns out to be positive sign and statistically significant at 1% level specifically in Malaysian conventional banks but lose its explanatory power when we control for Dummy Malaysia variable. The positive coefficient of lnPV indicates that political stability and freedom from violence and terrorism in Malaysia contribute to the conventional banks' higher TFPCH levels. This shows that the politicians in Malaysia fully exercise their power to optimize the social welfare of the country and to discipline non-compliant banks in order to improve productivity levels. It is also worth noting that the coefficients of lnRQ and lnRL enhanced its explanatory power from 10% (Table 4.5) to 1% significant level (Table 4.6b) in the conventional banks when the Dummy Malaysia variable controlled. Lastly, for control of corruption (lnCC), the coefficient is not significant in any of the regression models estimated when the all dummies countries controlled.

Table 4.6a : Regression Results on Islamic Bank in Malaysia

Variable	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	-0.093	-4.735***	-0.101	-0.080	-4.358***	-0.093	-0.087	-4.301***	-0.093	-0.100	-4.638***	-0.106	-0.078	-4.369***	-0.090	-0.081	-4.427***	-0.093
	(0.075)	(0.805)	(0.076)	(0.075)	(0.961)	(0.078)	(0.074)	(1.038)	(0.077)	(0.076)	(0.970)	(0.075)	(0.076)	(0.941)	(0.078)	(0.076)	(0.929)	(0.077)
Bank-Specific Variables																		
lnTA	0.088*	0.313**	0.118*	0.092*	0.300***	0.124*	0.078	0.295***	0.102*	0.076	0.316***	0.109*	0.091*	0.305***	0.125*	0.085*	0.302***	0.118*
	(0.051)	(0.126)	(0.064)	(0.051)	(0.073)	(0.065)	(0.050)	(0.078)	(0.062)	(0.051)	(0.077)	(0.065)	(0.053)	(0.075)	(0.067)	(0.051)	(0.073)	(0.066)
lnLLRGL	0.194*	0.108	0.155	0.166	0.148	0.124	0.175*	0.150*	0.148	0.191*	0.122	0.150	0.156	0.141	0.113	0.161	0.107	0.110
	(0.102)	(0.113)	(0.103)	(0.101)	(0.090)	(0.101)	(0.099)	(0.090)	(0.100)	(0.103)	(0.096)	(0.104)	(0.103)	(0.092)	(0.101)	(0.104)	(0.099)	(0.104)
lnETA	-0.435***	-0.566**	-0.521**	-0.456***	-0.514**	-0.536**	-0.412***	-0.516**	-0.478**	-0.475***	-0.519**	-0.553**	-0.465***	-0.515**	-0.547**	-0.477***	-0.547**	-0.564**
	(0.124)	(0.247)	(0.227)	(0.123)	(0.251)	(0.231)	(0.121)	(0.251)	(0.214)	(0.122)	(0.250)	(0.229)	(0.125)	(0.250)	(0.230)	(0.122)	(0.250)	(0.234)
lnBDTD	-0.133***	-0.123	-0.147**	-0.149***	-0.112**	-0.162**	-0.139***	-0.111**	-0.147**	-0.139***	-0.115**	-0.153**	-0.148***	-0.111**	-0.162**	-0.147***	-0.117**	-0.163**
	(0.039)	(0.090)	(0.067)	(0.039)	(0.049)	(0.065)	(0.038)	(0.049)	(0.060)	(0.039)	(0.050)	(0.066)	(0.039)	(0.050)	(0.067)	(0.039)	(0.049)	(0.067)
lnLOANSTA	0.055	0.652**	-0.022	0.025	0.621**	-0.044	0.124	0.620**	0.072	0.026	0.656**	-0.042	0.024	0.639**	-0.039	0.010	0.644**	-0.057
	(0.189)	(0.326)	(0.254)	(0.188)	(0.278)	(0.253)	(0.187)	(0.278)	(0.245)	(0.187)	(0.278)	(0.251)	(0.191)	(0.278)	(0.256)	(0.188)	(0.277)	(0.254)
lnNIETA	-0.076	0.990***	0.022	-0.143	0.945***	-0.032	0.011	0.947***	0.095	-0.082	0.980***	0.014	-0.113	0.967***	0.002	-0.127	0.961***	-0.016
	(0.180)	(0.367)	(0.207)	(0.179)	(0.284)	(0.213)	(0.180)	(0.285)	(0.206)	(0.180)	(0.284)	(0.204)	(0.181)	(0.281)	(0.212)	(0.179)	(0.279)	(0.209)
Macroeconomic Variables																		
lnGDP	0.045	0.085*	0.021	0.103	0.079	0.075	0.159	0.075	0.124	-0.026	0.123*	-0.031	0.045	0.062	0.021	0.054	0.123*	0.046
	(0.146)	(0.045)	(0.118)	(0.151)	(0.068)	(0.108)	(0.147)	(0.070)	(0.118)	(0.154)	(0.069)	(0.121)	(0.147)	(0.066)	(0.112)	(0.153)	(0.063)	(0.113)
lnCPI	-0.072	-0.081	-0.063	-0.069	-0.019	-0.051	-0.046	-0.027	-0.025	-0.102	-0.050	-0.087	-0.143	-0.039	-0.119	-0.140	-0.081	-0.129
	(0.217)	(0.091)	(0.177)	(0.220)	(0.108)	(0.157)	(0.212)	(0.108)	(0.167)	(0.215)	(0.094)	(0.170)	(0.216)	(0.104)	(0.170)	(0.219)	(0.099)	(0.163)
GFC	0.191	0.133**	0.129	0.090	0.182***	0.056	0.183	0.186***	0.133	0.224	0.112**	0.158	0.067	0.157***	0.027	0.088	0.139**	0.041
	(0.167)	(0.057)	(0.104)	(0.157)	(0.062)	(0.101)	(0.157)	(0.062)	(0.100)	(0.178)	(0.054)	(0.105)	(0.167)	(0.060)	(0.110)	(0.164)	(0.057)	(0.106)
Country Governance Variables																		
lnVA*DM	0.650*	-0.501***	0.492															
	(0.368)	(0.165)	(0.313)															
lnPV*DM				-1.224	-0.252	-1.103*												
				(0.872)	(0.437)	(0.652)												
lnGE*DM							-2.736***	-0.214	-2.603***									
							(0.834)	(0.613)	(0.759)									
lnRQ*DM										0.876	-0.570*	0.670						
										(0.560)	(0.312)	(0.419)						
lnRL*DM													-0.628	-0.611	-0.770			
													(1.340)	(0.669)	(1.058)			
lnCC*DM																-0.044	-0.533**	-0.191
																(0.454)	(0.256)	(0.361)
R^2	0.126	0.427	0.139	0.121	0.422	0.139	0.156	0.422	0.171	0.123	0.425	0.137	0.114	0.423	0.133	0.113	0.427	0.132
Adj R^2	0.084	0.303	0.098	0.079	0.297	0.097	0.116	0.297	0.131	0.081	0.301	0.096	0.071	0.297	0.091	0.070	0.303	0.091
F-statistic	3.005***	3.441***	3.366***	2.876***	3.371***	3.360***	3.866***	3.368***	4.304***	2.930***	3.414***	3.317***	2.679***	3.377***	3.199***	2.655***	3.440***	3.182***
BP & LM x^2	-	2.450		-	3.440*		-	3.190*		-	2.750*		-	3.750*		-	3.690*	
Hausman x^2	-	46.238***		-	44.263***		-	35.220***		-	46.378***		-	46.213***		-	48.104***	
No. Of Obs.	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.6b: Regression Results on Conventional Bank in Malaysia

Variable	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	-0.108***	-0.293	-0.108***	-0.108***	-0.628***	-0.108***	-0.109***	-0.388	-0.109***	-0.112***	-0.021	-0.112***	-0.112***	-0.316	-0.112***	-0.108***	-0.224	-0.108***
	(0.024)	(0.211)	(0.015)	(0.024)	(0.209)	(0.015)	(0.024)	(0.244)	(0.015)	(0.024)	(0.213)	(0.015)	(0.024)	(0.204)	(0.015)	(0.024)	(0.206)	(0.015)
Bank-Specific Variables																		
lnTA	-0.093***	-0.104***	-0.093***	-0.121***	-0.155***	-0.121***	-0.095***	-0.116***	-0.095***	-0.120***	-0.161***	-0.120***	-0.126***	-0.149***	-0.126***	-0.093***	-0.111***	-0.093***
	(0.013)	(0.018)	(0.024)	(0.014)	(0.018)	(0.029)	(0.013)	(0.016)	(0.022)	(0.016)	(0.025)	(0.032)	(0.015)	(0.020)	(0.034)	(0.014)	(0.020)	(0.027)
lnLLRGL	-0.149***	-0.142	-0.149**	-0.158***	-0.112	-0.158**	-0.136**	-0.122	-0.136*	-0.104*	-0.044	-0.104	-0.125**	-0.050	-0.125*	-0.145***	-0.109	-0.145**
	(0.053)	(0.101)	(0.075)	(0.051)	(0.092)	(0.064)	(0.053)	(0.093)	(0.070)	(0.053)	(0.099)	(0.070)	(0.051)	(0.095)	(0.067)	(0.052)	(0.098)	(0.071)
lnETA	0.056	0.060	0.056	-0.098	0.058	-0.098	0.070	0.091	0.070	0.008	-0.083	0.008	-0.113	-0.136	-0.113	0.058	0.032	0.058
	(0.076)	(0.164)	(0.116)	(0.082)	(0.162)	(0.114)	(0.079)	(0.165)	(0.116)	(0.078)	(0.169)	(0.127)	(0.086)	(0.164)	(0.106)	(0.076)	(0.165)	(0.122)
lnBDTD	-0.084	0.058	-0.084	-0.176**	0.132	-0.176	-0.046	0.058	-0.046	0.027	0.048	0.027	-0.109	0.059	-0.109	-0.079	0.030	-0.079
	(0.088)	(0.120)	(0.207)	(0.086)	(0.117)	(0.192)	(0.094)	(0.114)	(0.210)	(0.092)	(0.119)	(0.197)	(0.084)	(0.117)	(0.181)	(0.087)	(0.119)	(0.203)
lnLOANSTA	0.255***	0.347**	0.255***	0.206***	0.323**	0.206***	0.275***	0.385***	0.275***	0.308***	0.408***	0.308***	0.233***	0.381***	0.233***	0.258***	0.376**	0.258***
	(0.048)	(0.149)	(0.074)	(0.046)	(0.145)	(0.060)	(0.050)	(0.137)	(0.073)	(0.048)	(0.146)	(0.077)	(0.046)	(0.143)	(0.063)	(0.048)	(0.148)	(0.075)
lnNIETA	0.244***	0.068	0.244***	0.205***	-0.026	0.205**	0.253***	0.104	0.253***	0.254***	0.121	0.254***	0.230***	0.116	0.230**	0.246***	0.109	0.246***
	(0.071)	(0.124)	(0.090)	(0.071)	(0.121)	(0.083)	(0.071)	(0.117)	(0.090)	(0.071)	(0.120)	(0.091)	(0.070)	(0.119)	(0.090)	(0.071)	(0.121)	(0.090)
Macroeconomic Variables																		
lnGDP	0.035	0.079	0.035	-0.173	-0.243***	-0.173	0.043	-0.019	0.043	-0.195	-0.302**	-0.195	-0.070	-0.073	-0.070	0.040	0.074	0.040
	(0.119)	(0.092)	(0.127)	(0.122)	(0.093)	(0.111)	(0.120)	(0.083)	(0.092)	(0.140)	(0.145)	(0.185)	(0.118)	(0.090)	(0.108)	(0.134)	(0.110)	(0.189)
lnCPI	-0.026	-0.072	-0.026	-0.182	-0.148	-0.182	0.029	0.027	0.029	0.197	0.275*	0.197	0.172	0.273*	0.172	-0.012	0.005	-0.012
	(0.178)	(0.151)	(0.184)	(0.167)	(0.135)	(0.159)	(0.169)	(0.128)	(0.160)	(0.178)	(0.159)	(0.201)	(0.168)	(0.146)	(0.195)	(0.178)	(0.143)	(0.180)
GFC	0.087	0.102**	0.087**	0.071	0.106**	0.071*	0.095*	0.107***	0.095**	0.120**	0.128***	0.120***	0.106*	0.133***	0.106**	0.089	0.106**	0.089**
	(0.055)	(0.041)	(0.039)	(0.054)	(0.041)	(0.038)	(0.055)	(0.041)	(0.037)	(0.056)	(0.043)	(0.039)	(0.055)	(0.043)	(0.042)	(0.055)	(0.041)	(0.039)
Country Governance Variables																		
lnVA*DM	-0.234	-1.223*	-0.234															
	(0.518)	(0.668)	(1.021)															
lnPV*DM				3.520***	5.740***	3.520**												
				(0.739)	(0.848)	(1.408)												
lnGE*DM							-0.354	1.026	-0.354									
							(0.538)	(0.859)	(0.774)									
lnRQ*DM										1.414***	1.753***	1.414*						
										(0.511)	(0.677)	(0.778)						
lnRL*DM													4.366***	4.755***	4.366*			
													(1.056)	(1.296)	(2.297)			
lnCC*DM																-0.103	-0.406	-0.103
																(0.422)	(0.476)	(0.912)
R^2	0.098	0.217	0.098	0.120	0.253	0.120	0.098	0.215	0.098	0.105	0.220	0.105	0.114	0.231	0.114	0.098	0.214	0.098
Adj R^2	0.088	0.072	0.088	0.110	0.114	0.110	0.088	0.069	0.088	0.095	0.076	0.095	0.104	0.088	0.104	0.088	0.069	0.088
F-statistic	9.815***	1.499***	9.815***	12.303***	1.827***	12.303***	9.841***	1.477***	9.841***	10.642***	1.525***	10.642***	11.687***	1.620***	11.687***	9.799***	1.474***	9.799***
BP & LM x^2	-	0.540		-	0.060		-	0.790		-	1.150		-	0.590		-	0.610	
Hausman x^2	-	45.526***		-	58.037***		-	45.024***		-	48.250***		-	42.367***		-	43.241	
No. of Obs.	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.7a: Regression Results on Islamic Bank in Indonesia

Variable	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	**0.007**	**-0.502**	**0.007**	**0.006**	**-0.609**	**0.006**	**0.006**	**-0.350**	**0.006**	**0.009**	**-0.484**	**0.009**	**0.009**	**-0.460**	**0.009**	**0.007**	**-0.061**	**0.007**
	(0.052)	(0.318)	(0.058)	(0.052)	(0.414)	(0.059)	(0.052)	(0.403)	(0.057)	(0.052)	(0.355)	(0.057)	(0.052)	(0.374)	(0.058)	(0.052)	(0.532)	(0.058)
Bank-Specific Variables																		
lnTA	**-0.015**	**0.075****	**-0.015**	**-0.014**	**0.078****	**-0.014**	**-0.017**	**0.076*****	**-0.017**	**-0.012**	**0.079****	**-0.012**	**-0.009**	**0.077****	**-0.009**	**-0.016**	**0.071****	**-0.016**
	(0.025)	(0.034)	(0.029)	(0.023)	(0.032)	(0.024)	(0.023)	(0.026)	(0.023)	(0.023)	(0.032)	(0.025)	(0.024)	(0.032)	(0.025)	(0.024)	(0.033)	(0.027)
lnLLRGL	**0.196**	**-0.297**	**0.196**	**0.152**	**-0.367**	**0.152**	**0.209**	**-0.265**	**0.209**	**0.195**	**-0.309**	**0.195**	**0.174**	**-0.291**	**0.174**	**0.197**	**-0.324**	**0.197**
	(0.216)	(0.271)	(0.185)	(0.220)	(0.248)	(0.171)	(0.217)	(0.270)	(0.186)	(0.216)	(0.269)	(0.186)	(0.218)	(0.270)	(0.188)	(0.216)	(0.272)	(0.185)
lnETA	**-0.188**	**-0.155**	**-0.188****	**-0.165**	**0.007**	**-0.165****	**-0.210**	**-0.177**	**-0.210****	**-0.166**	**-0.132**	**-0.166***	**-0.142**	**-0.098**	**-0.142***	**-0.191**	**-0.185**	**-0.191****
	(0.240)	(0.349)	(0.088)	(0.233)	(0.379)	(0.075)	(0.236)	(0.342)	(0.084)	(0.236)	(0.360)	(0.087)	(0.241)	(0.353)	(0.085)	(0.232)	(0.383)	(0.084)
lnBDTD	**-0.128**	**-0.386*****	**-0.128****	**-0.140**	**-0.411*****	**-0.140****	**-0.132**	**-0.414*****	**-0.132****	**-0.133**	**-0.405*****	**-0.133****	**-0.134**	**-0.383*****	**-0.134****	**-0.127**	**-0.402*****	**-0.127****
	(0.096)	(0.134)	(0.059)	(0.095)	(0.128)	(0.059)	(0.095)	(0.147)	(0.062)	(0.095)	(0.142)	(0.055)	(0.095)	(0.140)	(0.059)	(0.095)	(0.136)	(0.058)
lnLOANSTA	**0.153**	**-0.810**	**0.153**	**0.391**	**-0.203**	**0.391**	**0.072**	**-1.007***	**0.072**	**0.262**	**-0.969**	**0.262**	**0.426**	**-0.741**	**0.426**	**0.146**	**-0.963**	**0.146**
	(0.551)	(0.637)	(0.358)	(0.526)	(0.596)	(0.413)	(0.492)	(0.599)	(0.341)	(0.509)	(0.668)	(0.317)	(0.607)	(0.621)	(0.315)	(0.468)	(0.656)	(0.318)
lnNIETA	**-0.603**	**1.543****	**-0.603**	**-0.568**	**1.290****	**-0.568**	**-0.564**	**1.717*****	**-0.564**	**-0.649**	**1.730*****	**-0.649**	**-0.662**	**1.493****	**-0.662**	**-0.599**	**1.733****	**-0.599**
	(0.576)	(0.614)	(0.457)	(0.573)	(0.567)	(0.443)	(0.579)	(0.534)	(0.470)	(0.579)	(0.639)	(0.455)	(0.579)	(0.616)	(0.428)	(0.575)	(0.682)	(0.460)
Macroeconomic Variables																		
lnGDP	**-0.022**	**-0.196**	**-0.022**	**-0.535**	**-1.188****	**-0.535**	**0.257**	**0.025**	**0.257**	**-0.378**	**0.028**	**-0.378**	**-0.800**	**-0.398**	**-0.800**	**0.013**	**-0.706**	**0.013**
	(1.114)	(0.503)	(0.644)	(1.026)	(0.575)	(0.553)	(1.047)	(0.778)	(0.612)	(1.097)	(0.752)	(0.396)	(1.411)	(0.621)	(0.572)	(0.888)	(0.594)	(0.467)
lnCPI	**0.238**	**0.194**	**0.238**	**0.139**	**0.157**	**0.139**	**0.187**	**0.060**	**0.187**	**0.288**	**0.099**	**0.288**	**0.275**	**0.203**	**0.275**	**0.230**	**0.100**	**0.230**
	(0.421)	(0.260)	(0.302)	(0.431)	(0.241)	(0.330)	(0.435)	(0.211)	(0.306)	(0.429)	(0.308)	(0.293)	(0.423)	(0.260)	(0.309)	(0.430)	(0.281)	(0.308)
GFC	**0.046**	**-0.021**	**0.046**	**0.052**	**-0.017**	**0.052**	**0.053**	**-0.011**	**0.053**	**0.037**	**-0.017**	**0.037**	**0.035**	**-0.023**	**0.035**	**0.048**	**-0.006**	**0.048**
	(0.112)	(0.051)	(0.058)	(0.111)	(0.059)	(0.061)	(0.112)	(0.048)	(0.054)	(0.112)	(0.051)	(0.058)	(0.112)	(0.050)	(0.060)	(0.114)	(0.057)	(0.067)
Country Governance Variables																		
lnVA*DI	**-0.069**	**0.763**	**-0.069**															
	(1.894)	(0.809)	(1.473)															
lnPV*DI				**-0.084**	**-0.106*****	**-0.084****												
				(0.083)	(0.037)	(0.039)												
lnGE*DI							**0.141**	**0.349****	**0.141**									
							(0.317)	(0.169)	(0.242)									
lnRQ*DI										**-0.120**	**0.168**	**-0.120**						
										(0.207)	(0.108)	(0.115)						
lnRL*DI													**-0.255**	**0.047**	**-0.255**			
													(0.350)	(0.137)	(0.165)			
lnCC*DI																**0.016**	**0.185**	**0.016**
																(0.206)	(0.139)	(0.176)
R^2	0.031	0.237	0.031	0.036	0.243	0.036	0.032	0.242	0.032	0.033	0.239	0.033	0.034	0.236	0.034	0.031	0.239	0.031
Adj R^2	-0.015	0.072	-0.015	-0.010	0.079	-0.010	-0.014	0.077	-0.014	-0.014	0.074	-0.014	-0.013	0.071	-0.013	-0.015	0.074	-0.015
F-statistic	0.671	1.433*	0.671	0.776	1.482**	0.776	0.691	1.470**	0.691	0.705	1.447*	0.705	0.725	1.429*	0.725	0.671	1.450*	0.671
BP & LM x^2	-	0.040		-	0.060		-	0.050		-	0.030		-	0.030		-	0.040	
Hausman x^2	-	31.684***		-	33.008***		-	34.109***		-	34.258***		-	30.942***		-	33.729***	
No. of Obs.	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.7b: Regression Results on Conventional Bank in Indonesia

Variable	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	**-0.271*** **	**0.059**	**-0.271*** **	**-0.271*** **	**0.363**	**-0.271*** **	**-0.271*** **	**0.183**	**-0.271*** **	**-0.271*** **	**0.500**	**-0.271*** **	**-0.271*** **	**0.232**	**-0.271*** **	**-0.271*** **	**1.236** **	**-0.271*** **
	(0.035)	(0.472)	(0.053)	(0.035)	(0.441)	(0.049)	(0.035)	(0.436)	(0.036)	(0.035)	(0.586)	(0.036)	(0.035)	(0.524)	(0.036)	(0.035)	(0.611)	(0.050)
Bank-Specific Variables																		
lnTA	**0.001**	**-0.001**	**0.001**	**0.008**	**0.005**	**0.008***	**0.009***	**0.004**	**0.009***	**0.001**	**-0.006**	**0.001**	**0.003**	**-0.001**	**0.003**	**0.006**	**-0.007***	**0.006** **
	(0.006)	(0.005)	(0.004)	(0.006)	(0.007)	(0.004)	(0.005)	(0.005)	(0.005)	(0.006)	(0.008)	(0.005)	(0.007)	(0.010)	(0.008)	(0.005)	(0.004)	(0.003)
lnLLRGL	**0.005**	**-0.018**	**0.005**	**-0.001**	**-0.027**	**-0.001**	**-0.003**	**-0.019**	**-0.003**	**0.006**	**-0.012**	**0.006**	**0.004**	**-0.018**	**0.004**	**0.001**	**-0.022**	**0.001**
	(0.025)	(0.031)	(0.018)	(0.025)	(0.016)	(0.016)	(0.024)	(0.016)	(0.024)	(0.025)	(0.036)	(0.025)	(0.025)	(0.035)	(0.026)	(0.024)	(0.015)	(0.016)
lnETA	**-0.040**	**-0.023**	**-0.040**	**-0.023**	**-0.008**	**-0.023**	**-0.021**	**-0.010**	**-0.021**	**-0.037**	**-0.031**	**-0.037**	**-0.035**	**-0.022**	**-0.035**	**-0.026**	**-0.037**	**-0.026**
	(0.052)	(0.046)	(0.036)	(0.052)	(0.052)	(0.035)	(0.051)	(0.052)	(0.045)	(0.052)	(0.083)	(0.045)	(0.053)	(0.080)	(0.047)	(0.051)	(0.057)	(0.035)
lnBDTD	**-0.001**	**0.003**	**-0.001**	**0.004**	**0.001**	**0.004**	**-0.004**	**0.003**	**-0.004**	**0.007**	**0.004**	**0.007**	**0.004**	**0.006**	**0.004**	**0.005**	**0.001**	**0.005**
	(0.046)	(0.037)	(0.034)	(0.046)	(0.035)	(0.030)	(0.047)	(0.036)	(0.047)	(0.046)	(0.054)	(0.046)	(0.046)	(0.052)	(0.046)	(0.047)	(0.036)	(0.030)
lnLOANSTA	**0.023**	**0.023**	**0.023**	**0.049**	**0.049**	**0.049**	**0.038**	**0.037**	**0.038**	**0.044**	**0.020**	**0.044**	**0.034**	**0.025**	**0.034**	**0.049**	**0.015**	**0.049**
	(0.075)	(0.061)	(0.041)	(0.075)	(0.066)	(0.057)	(0.073)	(0.072)	(0.070)	(0.072)	(0.107)	(0.069)	(0.074)	(0.102)	(0.071)	(0.074)	(0.073)	(0.057)
lnNIETA	**-0.034**	**-0.058***	**-0.034**	**-0.031**	**-0.052**	**-0.031**	**-0.031**	**-0.053**	**-0.031**	**-0.029**	**-0.054**	**-0.029**	**-0.032**	**-0.055**	**-0.032**	**-0.030**	**-0.059**	**-0.030**
	(0.043)	(0.035)	(0.033)	(0.043)	(0.041)	(0.029)	(0.043)	(0.042)	(0.043)	(0.043)	(0.071)	(0.043)	(0.043)	(0.065)	(0.042)	(0.043)	(0.041)	(0.029)
Macroeconomic Variables																		
lnGDP	**0.054**	**-0.149**	**0.054**	**0.051**	**-0.347**	**0.051**	**0.046**	**-0.240**	**0.046**	**0.192**	**0.246**	**0.192**	**0.148**	**-0.173**	**0.148**	**0.059**	**-0.778** **	**0.059**
	(0.196)	(0.271)	(0.124)	(0.196)	(0.333)	(0.140)	(0.196)	(0.334)	(0.190)	(0.225)	(0.297)	(0.205)	(0.237)	(0.326)	(0.248)	(0.197)	(0.371)	(0.141)
lnCPI	**-0.075**	**-0.093**	**-0.075**	**-0.106**	**-0.162**	**-0.106**	**-0.108**	**-0.107**	**-0.108**	**-0.082**	**-0.076**	**-0.082**	**-0.060**	**-0.071**	**-0.060**	**-0.089**	**-0.084**	**-0.089**
	(0.125)	(0.090)	(0.078)	(0.151)	(0.120)	(0.105)	(0.129)	(0.111)	(0.111)	(0.125)	(0.122)	(0.118)	(0.130)	(0.121)	(0.114)	(0.125)	(0.096)	(0.088)
GFC	**0.202*** **	**0.223*** **	**0.202*** **	**0.205*** **	**0.227*** **	**0.205*** **	**0.204*** **	**0.222*** **	**0.204*** **	**0.205*** **	**0.215*** **	**0.205*** **	**0.202*** **	**0.218*** **	**0.202*** **	**0.209*** **	**0.242*** **	**0.209*** **
	(0.059)	(0.052)	(0.044)	(0.060)	(0.072)	(0.067)	(0.059)	(0.072)	(0.044)	(0.059)	(0.051)	(0.048)	(0.059)	(0.047)	(0.047)	(0.062)	(0.073)	(0.072)
Country Governance Variables																		
lnVA*DI	**0.774**	**0.672**	**0.774***															
	(0.686)	(0.530)	(0.445)															
lnPV*DI				**-0.033**	**-0.114**	**-0.033**												
				(0.139)	(0.107)	(0.088)												
lnGE*DI							**-0.163**	**-0.090**	**-0.163**									
							(0.240)	(0.125)	(0.221)									
lnRQ*DI										**0.154**	**0.181***	**0.154***						
										(0.123)	(0.101)	(0.091)						
lnRL*DI													**0.086**	**0.074**	**0.086**			
													(0.120)	(0.133)	(0.124)			
lnCC*DI																**0.014**	**0.109** **	**0.014**
																(0.050)	(0.055)	(0.035)
R^2	0.028	0.149	0.028	0.027	0.149	0.027	0.027	0.149	0.027	0.028	0.150	0.028	0.027	0.149	0.027	0.027	0.151	
Adj R^2	0.017	-0.008	0.017	0.016	-0.008	0.016	0.016	-0.009	0.016	0.017	-0.007	0.017	0.016	-0.009	0.016	0.016	-0.006	
F-statistic	2.593***	0.948	2.593***	2.468***	0.947	2.468***	2.509***	0.944	2.509***	2.622***	0.957	2.622***	2.514***	0.945	2.514***	2.470***	0.960	
BP & LM x^2	-	0.020		-	0.010		-	0.010		-	0.010		-	0.020		-	0.010	
Hausman x^2	-	4.399		-	5.492		-	4.635		-	5.439		-	4.780		-	7.115	
No. of Obs.	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.8a: Regression Results on Islamic Bank in Brunei

Variable	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	**-0.003**	**-0.097**	**-0.003**	**-0.003**	**-0.097**	**-0.003**	**-0.003**	**-0.097**	**-0.003**	**-0.003**	**-0.097**	**-0.003**	**-0.003**	**-0.097**	**-0.003**	**-0.003**	**-0.097**	**-0.003**
	(0.054)	(0.317)	(0.058)	(0.054)	(0.317)	(0.058)	(0.054)	(0.317)	(0.058)	(0.054)	(0.317)	(0.058)	(0.054)	(0.317)	(0.058)	(0.054)	(0.317)	(0.058)
Bank-Specific Variables																		
lnTA	**-0.491**	**-0.527*** **	**-0.493*** **	**-0.461**	**-0.503*** **	**-0.464*** **	**-0.421**	**-0.471*** **	**-0.425*** **	**-0.525**	**-0.553*** **	**-0.527*** **	**-0.150**	**-0.256**	**-0.156**	**-0.426**	**-0.475*** **	**-0.429*** **
	(1.970)	(0.041)	(0.041)	(2.167)	(0.056)	(0.057)	(2.614)	(0.076)	(0.083)	(1.952)	(0.024)	(0.034)	(7.385)	(0.220)	(0.281)	(2.560)	(0.074)	(0.080)
lnLLRGL	**0.449**	**0.440*** **	**0.448*** **	**0.379**	**0.384*** **	**0.379*** **	**0.359**	**0.369*** **	**0.360*** **	**0.449**	**0.440*** **	**0.448*** **	**2.019**	**1.685** **	**1.998***	**0.353**	**0.364*** **	**0.354*** **
	(2.674)	(0.055)	(0.074)	(2.595)	(0.090)	(0.114)	(2.701)	(0.099)	(0.127)	(2.676)	(0.055)	(0.074)	(31.936)	(0.785)	(1.129)	(2.744)	(0.103)	(0.131)
lnETA	**1.242**	**1.204*** **	**1.239*** **	**1.259**	**1.217*** **	**1.256*** **	**1.164**	**1.142*** **	**1.162*** **	**1.256**	**1.215*** **	**1.253*** **	**0.783**	**0.840*** **	**0.786** **	**1.125**	**1.111*** **	**1.124*** **
	(4.709)	(0.033)	(0.080)	(4.621)	(0.034)	(0.079)	(5.362)	(0.052)	(0.108)	(4.636)	(0.034)	(0.079)	(11.351)	(0.245)	(0.368)	(5.815)	(0.070)	(0.130)
lnBDTD	**0.013**	**0.039**	**0.013**	**0.013**	**0.039**	**0.013**	**0.013**	**0.039**	**0.013**	**0.013**	**0.039**	**0.013**	**0.013**	**0.039**	**0.013**	**0.013**	**0.039**	**0.013**
	(0.137)	(0.036)	(0.104)	(0.137)	(0.036)	(0.104)	(0.137)	(0.036)	(0.104)	(0.137)	(0.036)	(0.104)	(0.137)	(0.036)	(0.104)	(0.137)	(0.036)	(0.104)
lnLOANSTA	**0.088**	**-0.799*** **	**0.086**	**0.088**	**-0.799*** **	**0.086**	**0.088**	**-0.799*** **	**0.086**	**0.088**	**-0.799*** **	**0.086**	**0.088**	**-0.799*** **	**0.086**	**0.088**	**-0.799*** **	**0.086**
	(0.096)	(0.306)	(0.089)	(0.096)	(0.306)	(0.089)	(0.096)	(0.306)	(0.089)	(0.096)	(0.306)	(0.089)	(0.096)	(0.306)	(0.089)	(0.096)	(0.306)	(0.089
lnNIETA	**-0.050**	**0.359**	**-0.049**	**-0.050**	**0.359**	**-0.049**	**-0.050**	**0.359**	**-0.049**	**-0.050**	**0.359**	**-0.049**	**-0.050**	**0.359**	**-0.049**	**-0.050**	**0.359**	**-0.049**
	(0.043)	(0.532)	(0.040)	(0.043)	(0.532)	(0.040)	(0.043)	(0.532)	(0.040)	(0.043)	(0.532)	(0.040)	(0.043)	(0.532)	(0.040)	(0.043)	(0.532)	(0.040)
Macroeconomic Variables																		
lnGDP	**-0.271**	**-0.278*** **	**-0.271*** **	**-0.251**	**-0.262*** **	**-0.252*** **	**-0.239**	**-0.253*** **	**-0.240*** **	**-0.286**	**-0.290*** **	**-0.286*** **	**0.219**	**0.110**	**0.212**	**-0.232**	**-0.247*** **	**-0.233*** **
	(0.813)	(0.015)	(0.020)	(0.850)	(0.025)	(0.031)	(0.957)	(0.032)	(0.039)	(0.906)	(0.008)	(0.016)	(9.585)	(0.275)	(0.378)	(1.032)	(0.035)	(0.045)
lnCPI	**-1.226**	**-1.294*** **	**-1.230*** **	**-1.082**	**-1.180*** **	**-1.088*** **	**-1.020**	**-1.131*** **	**-1.027*** **	**-1.294**	**-1.349*** **	**-1.298*** **	**-1.033**	**-1.142*** **	**-1.040*** **	**-0.986**	**-1.104*** **	**-0.993*** **
	(-5.172)	(0.066)	(0.090)	(5.710)	(0.138)	(0.145)	(6.334)	(0.170)	(0.184)	(5.441)	(0.038)	(0.099)	(6.185)	(0.163)	(0.175)	(6.746)	(0.188)	(0.206)
GFC	**0.038**	**0.062**	**0.040**	**0.038**	**0.062**	**0.040**	**0.038**	**0.062**	**0.040**	**0.038**	**0.062**	**0.040**	**0.038**	**0.062**	**0.040**	**0.038**	**0.062**	**0.040**
	(0.110)	(0.044)	(0.070)	(0.110)	(0.044)	(0.070)	(0.110)	(0.044)	(0.070)	(0.110)	(0.044)	(0.070)	(0.110)	(0.044)	(0.070)	(0.110)	(0.044)	(0.070)
Country Governance Variables																		
lnVA*DB	**0.043**	**0.034**	**0.043**															
	(0.851)	(0.023)	(0.032)															
lnPV*DB				**-0.275**	**-0.218**	**-0.272**												
				(5.438)	(0.146)	(0.206)												
lnGE*DB							**-0.923**	**-0.732**	**-0.911**									
							(18.214)	(0.490)	(0.690)									
lnRQ*DB										**0.462**	**0.366**	**0.456**						
										(9.111)	(0.245)	(0.345)						
lnRL*DB													**-0.050**	**-9.401**	**-11.709**			
													(0.043)	(6.295)	(8.861)			
lnCC*DB																**-0.231**	**-0.183**	**-0.228**
																(4.555)	(0.123)	(0.172)
R^2	0.020	0.155	0.016	0.020	0.155	0.016	0.020	0.155	0.016	0.020	0.155	0.016	0.020	0.155	0.016	0.020	0.155	0.016
Adj R^2	-0.027	0.001	-0.031	-0.027	0.001	-0.031	-0.027	0.001	-0.031	-0.027	0.001	-0.031	-0.027	0.001	-0.031	-0.027	0.001	-0.031
F-statistic	0.420	1.006	0.335	0.420	1.006	0.335	0.420	1.006	0.335	0.420	1.006	0.335	0.420	1.006	0.335	0.420	1.006	0.335
BP & LM x^2	-	2.280		-	1.010		-	1.010		-	1.010		-	0.960		-	1.010	
Hausman x^2	-	0.001		-	0.001		-	0.001		-	0.001		-	0.001		-	0.001	
No. of Obs.	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.8b: Regression Results on Conventional Bank in Brunei

Variable	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	-0.172***	-0.040	-0.172***	-0.172***	0.580***	-0.172***	-0.172***	-0.016	-0.172***	-0.172***	-0.035***	-0.172***	-0.172***	-0.136***	-0.172***	-0.172***	3.339***	-0.172***
	(0.022)	(0.038)	(0.046)	(0.022)	(0.146)	(0.046)	(0.022)	(0.042)	(0.046)	(0.022)	(0.002)	(0.046)	(0.022)	(0.027)	(0.046)	(0.022)	(0.651)	(0.046)
Bank-Specific Variables																		
lnTA	-0.009	-0.225***	-0.009	-0.122	-1.030***	-0.122***	-0.104	-0.342***	-0.104***	0.008	-0.217***	0.008	-0.044	-0.108***	-0.044***	-0.102	-4.950***	-0.102***
	(0.306)	(0.012)	(0.029)	(0.272)	(0.135)	(0.038)	(0.255)	(0.009)	(0.034)	(0.338)	(0.010)	(0.034)	(0.257)	(0.034)	(0.010)	(0.252)	(0.854)	(0.034)
lnLLRGL	2.648	0.870***	2.648***	1.358	-4.158***	1.358***	4.082	2.129***	4.082***	2.421	0.641***	2.421***	4.053	3.194***	4.053***	2.353	-49.142***	2.353***
	(3.144)	(0.195)	(0.330)	(3.186)	(0.727)	(0.395)	(7.045)	(0.426)	(0.861)	(2.903)	(0.105)	(0.319)	(4.688)	(0.621)	(0.138)	(2.826)	(8.976)	(0.341)
lnETA	2.774	4.682***	2.774***	1.704	14.601***	1.704***	3.538	5.986***	3.538***	1.606	3.823***	1.606***	2.359	2.891***	2.359***	2.499	42.882***	2.499***
	(3.055)	(0.061)	(0.273)	(2.284)	(1.880)	(0.391)	(5.474)	(0.300)	(0.631)	(2.336)	(0.067)	(0.231)	(2.355)	(0.267)	(0.097)	(2.640)	(7.066)	(0.276)
lnBDTD	-0.162	-0.659***	-0.162***	-0.268	-3.266***	-0.268***	-0.610	-1.148***	-0.610***	-0.189	-0.693***	-0.189***	-0.119	-0.297**	-0.119***	-0.263	-14.026***	-0.263***
	(0.600)	(0.055)	(0.055)	(0.457)	(0.423)	(0.064)	(0.905)	(0.035)	(0.105)	(0.563)	(0.034)	(0.055)	(0.578)	(0.122)	(0.014)	(0.446)	(2.396)	(0.055)
lnLOANSTA	-2.175	-5.075***	-2.175***	-0.254	-23.644***	-0.254	-4.040	-7.633***	-4.040***	-1.185	-4.397***	-1.185***	-2.047	-2.858***	-2.047***	-1.620	-73.857***	-1.620***
	(2.622)	(0.078)	(0.203)	(3.566)	(3.327)	(0.354)	(8.468)	(0.391)	(1.027)	(1.691)	(0.139)	(0.143)	(2.099)	(0.485)	(0.055)	(1.783)	(12.535)	(0.144)
lnNIETA	-0.183	1.101***	-0.183	0.532	8.511***	0.532	1.733	2.984***	1.733***	-0.424	0.913***	-0.424	-0.100	0.386	-0.100	0.681	33.012***	0.681**
	(3.632)	(0.201)	(0.373)	(2.731)	(1.158)	(0.411)	(3.662)	(0.145)	(0.458)	(4.175)	(0.162)	(0.439)	(3.117)	(0.332)	(0.075)	(2.587)	(5.651)	(0.333)
Macroeconomic Variables																		
lnGDP	0.065	-0.030***	0.065	-0.063	-0.247***	-0.063	-0.011	-0.107***	-0.011	0.119	0.013***	0.119***	-0.064	-0.070***	-0.064**	-0.055	-1.338***	-0.055
	(0.358)	(0.010)	(0.040)	(0.344)	(0.049)	(0.039)	(0.307)	(0.024)	(0.049)	(0.450)	(0.001)	(0.040)	(0.323)	(0.017)	(0.029)	(0.327)	(0.249)	(0.034)
lnCPI	0.392	0.433***	0.392***	-0.222	1.286***	-0.222***	0.370	0.532***	0.370*	0.282	0.361***	0.282**	0.083	0.090***	0.083***	0.001	1.294***	0.000
	(1.318)	(0.073)	(0.119)	(0.621)	(0.229)	(0.055)	(1.542)	(0.091)	(0.203)	(1.107)	(0.041)	(0.110)	(0.618)	(0.010)	(0.022)	(0.574)	(0.230)	(0.049)
GFC	0.154***	0.185***	0.154***	0.156***	0.185***	0.156***	0.155***	0.185***	0.155***	0.154***	0.185***	0.154***	0.155***	0.185***	0.155***	0.156***	0.185***	0.156***
	(0.053)	(0.065)	(0.056)	(0.053)	(0.065)	(0.056)	(0.053)	(0.065)	(0.056)	(0.053)	(0.044)	(0.056)	(0.053)	(0.065)	(0.056)	(0.053)	(0.065)	(0.056)
Country Governance Variables																		
lnVA*DB	-0.546	-0.435***	-0.546***															
	(1.339)	(0.080)	(0.101)															
lnPV*DB				-2.542	12.452***	-2.542***												
				(7.398)	(2.283)	(0.557)												
lnGE*DB							7.913	7.832***	7.913**									
							(24.353)	(1.436)	(3.100)									
lnRQ*DB										-1.711	-1.408***	-1.711***						
										(4.359)	(0.178)	(0.367)						
lnRL*DB													-2.617	-2.161***	-2.617***			
													(4.834)	(0.396)	(0.159)			
lnCC*DB																-0.969	22.069***	-0.969***
																(2.390)	(4.047)	(0.209)
R^2	0.012	0.146	0.012	0.012	0.146	0.012	0.012	0.146	0.012	0.012	0.146	0.012	0.012	0.146	0.012	0.012	0.146	0.012
Adj R^2	0.001	-0.012	0.001	0.001	-0.012	0.001	0.001	-0.012	0.001	0.001	-0.012	0.001	0.001	-0.012	0.001	0.001	-0.012	0.001
F-statistic	1.107	0.924	1.107	1.102	0.924	1.102	1.100	0.924	1.100	1.105	0.924	1.105	1.119	0.924	1.119	1.106	0.924	1.106
BP & LM x^2	-	1.030		-	1.030		-	1.030		-	1.030		-	1.030		-	1.030	
Hausman x^2	-	0.001		-	0.001		-	0.001		-	0.001		-	0.001		-	0.001	
No. of Obs.	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.9a: Regression Results on Islamic Bank in Singapore

Variable	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	**-0.042**	**-0.435*** **	**-0.041**	**-0.042**	**-46.025*** **	**-0.041**	**-0.042**	**-0.567*** **	**-0.041**	**-0.042**	**-0.665*** **	**-0.041**	**-0.042**	**-0.460*** **	**-0.041**	**-0.042**	**0.537*** **	**-0.041**
	(0.047)	(0.041)	(0.061)	(0.047)	(0.418)	(0.061)	(0.047)	(0.042)	(0.061)	(0.047)	(0.042)	(0.061)	(0.047)	(0.041)	(0.061)	(0.047)	(0.038)	(0.061)
Bank-Specific Variables																		
lnTA	**0.026**	**0.002*** **	**0.026***	**0.002**	**-1.336*** **	**0.002**	**0.001**	**-0.023*** **	**0.001**	**0.048**	**0.009*** **	**0.048**	**0.031**	**0.003*** **	**0.031** **	**-0.084**	**-0.128*** **	**-0.084*** **
	(0.108)	(0.003)	(0.014)	(0.110)	(0.012)	(0.019)	(0.111)	(0.001)	(0.024)	(0.125)	(0.003)	(0.031)	(0.109)	(0.004)	(0.015)	(0.164)	(0.001)	(0.010)
lnLLRGL	**-0.264**	**-0.242*** **	**-0.264*** **	**0.090**	**-10.817*** **	**0.090*** **	**-0.112**	**-0.186*** **	**-0.111**	**0.164**	**-0.018**	**0.165** **	**0.233**	**0.073*** **	**0.233*** **	**-0.487**	**-0.769*** **	**-0.487*** **
	(0.549)	(0.009)	(0.047)	(0.231)	(0.082)	(0.027)	(0.429)	(0.010)	(0.076)	(0.250)	(0.011)	(0.076)	(0.276)	(0.012)	(0.049)	(0.764)	(0.005)	(0.063)
lnETA	**0.196**	**2.867*** **	**0.195*** **	**-1.859**	**43.298*** **	**-1.859*** **	**1.874**	**4.907*** **	**1.874*** **	**0.489**	**4.745*** **	**0.489**	**2.056**	**4.229*** **	**2.056*** **	**6.982**	**8.300*** **	**6.982*** **
	(0.480)	(0.028)	(0.038)	(2.385)	(3.690)	(0.395)	(3.142)	(0.011)	(0.442)	(1.293)	(0.012)	(0.352)	(2.901)	(0.016)	(0.154)	(8.541)	(0.019)	(0.622)
lnBDTD	**0.086**	**-0.022*** **	**0.086*** **	**-0.109**	**-2.827*** **	**-0.109*** **	**-0.008**	**-0.100*** **	**-0.008**	**-0.044**	**-0.138*** **	**-0.045**	**-0.068**	**-0.125*** **	**-0.068** **	**-0.185**	**-0.199*** **	**-0.185*** **
	(0.271)	(0.004)	(0.023)	(0.217)	(0.024)	(0.027)	(0.215)	(0.002)	(0.046)	(0.203)	(0.001)	(0.052)	(0.202)	(0.004)	(0.031)	(0.258)	(0.001)	(0.018)
lnLOANSTA	**0.042**	**-0.085**	**0.033**	**0.042**	**-0.085**	**0.033**	**0.042**	**-0.085**	**0.033**	**0.042**	**-0.085**	**0.033**	**0.042**	**-0.085**	**0.033**	**0.042**	**-0.085**	**0.033**
	(0.588)	(0.126)	(0.077)	(0.588)	(0.126)	(0.077)	(0.588)	(0.126)	(0.077)	(0.588)	(0.126)	(0.077)	(0.588)	(0.126)	(0.077)	(0.588)	(0.126)	(0.077)
lnNIETA	**-0.072**	**-0.070**	**-0.071**	**-0.072**	**-0.070**	**-0.071**	**-0.072**	**-0.070**	**-0.071**	**-0.072**	**-0.070**	**-0.071**	**-0.072**	**-0.070**	**-0.071**	**-0.072**	**-0.070**	**-0.071**
	(1.161)	(0.194)	(0.156)	(1.161)	(0.194)	(0.157)	(1.161)	(0.194)	(0.156)	(1.162)	(0.194)	(0.156)	(1.161)	(0.194)	(0.156)	(1.161)	(0.194)	(0.156)
Macroeconomic Variables																		
lnGDP	**0.615**	**0.427*** **	**0.615*** **	**0.585**	**-29.220*** **	**0.586*** **	**0.270**	**0.184*** **	**0.271*** **	**0.137**	**0.056*** **	**0.137**	**0.050**	**0.058*** **	**0.051**	**0.271**	**0.370*** **	**0.271*** **
	(0.721)	(0.014)	(0.056)	(0.704)	(0.243)	(0.078)	(0.547)	(0.011)	(0.079)	(0.604)	(0.010)	(0.116)	(0.612)	(0.010)	(0.061)	(0.547)	(0.013)	(0.026)
lnCPI	**-0.308**	**-0.413*** **	**-0.308*** **	**-0.430**	**-1.447*** **	**-0.430*** **	**-0.286**	**-0.443*** **	**-0.286*** **	**-0.259**	**-0.463*** **	**-0.259*** **	**-0.297**	**-0.414*** **	**-0.297*** **	**-0.633**	**-0.745*** **	**-0.633*** **
	(0.430)	(0.002)	(0.057)	(0.498)	(0.011)	(0.059)	(0.427)	(0.002)	(0.076)	(0.423)	(0.003)	(0.078)	(0.427)	(0.002)	(0.061)	(0.643)	(0.005)	(0.043)
GFC	**0.083**	**0.088** *	**0.084**	**0.082**	**0.088** *	**0.084**	**0.083**	**0.088** *	**0.084**	**0.083**	**0.088** *	**0.084**	**0.083**	**0.088** *	**0.084**	**0.083**	**0.088** *	**0.084**
	(0.111)	(0.045)	(0.074)	(0.111)	(0.045)	(0.074)	(0.111)	(0.045)	(0.074)	(0.111)	(0.045)	(0.074)	(0.111)	(0.045)	(0.074)	(0.111)	(0.045)	(0.074)
Country Governance Variables																		
lnVA*DS	**3.430**	**2.223*** **	**3.430*** **															
	(4.491)	(0.019)	(0.206)															
lnPV*DS				**8.011**	**-43.601*** **	**8.011*** **												
				(10.761)	(4.707)	(1.760)												
lnGE*DS							**-7.764**	**-5.232*** **	**-7.765*** **									
							(12.326)	(0.045)	(1.669)									
lnRQ*DS										**-2.959**	**-2.548*** **	**-2.959** *						
										(6.363)	(0.022)	(1.673)						
lnRL*DS													**-10.152**	**-6.522*** **	**-10.153*** **			
													(13.613)	(0.056)	(0.686)			
lnCC*DS																**-25.182**	**-43.528*** **	**-25.184*** **
																(30.365)	(0.377)	(2.222)
R^2	0.030	0.160	0.028	0.030	0.160	0.028	0.029	0.160	0.027	0.028	0.160	0.026	0.030	0.160	0.028	0.030	0.160	0.028
Adj R^2	-0.016	0.007	-0.018	-0.016	0.007	-0.018	-0.017	0.007	-0.019	-0.018	0.007	-0.020	-0.016	0.007	-0.018	-0.016	0.007	-0.018
F-statistic	0.646	1.044	0.603	0.643	1.044	0.600	0.627	1.044	0.583	0.608	1.044	0.564	0.643	1.044	0.600	0.657	1.044	0.614
BP & LM x^2	-	0.250		-	0.210		-	0.190		-	0.220		-	0.210		-	0.190	
Hausman x^2	-	0.001		-	0.001		-	0.001		-	0.001		-	0.001		-	0.001	
No. of Obs.	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Table 4.9b: Regression Results on Conventional Bank in Singapore

Variable	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM	Pooled OLS	FEM	REM
Constant	-0.178***	-0.079*	-0.178***	-0.178***	0.070	-0.177***	-0.177***	0.295***	-0.177***	-0.177***	-0.081	-0.177***	-0.177***	-0.133	-0.177***	-0.177***	0.491**	-0.177***
	(0.023)	(0.043)	(0.024)	(0.023)	(0.104)	(0.025)	(0.023)	(0.081)	(0.025)	(0.023)	(0.077)	(0.050)	(0.023)	(0.111)	(0.050)	(0.023)	(0.219)	(0.025)
Bank-Specific Variables																		
lnTA	0.004	-0.005	0.004	0.010	0.030***	0.010	0.010	0.001	0.010	0.004	0.024	0.004	0.005	0.016	0.005	0.008	-0.008	0.008
	(0.018)	(0.010)	(0.007)	(0.022)	(0.010)	(0.009)	(0.019)	(0.005)	(0.007)	(0.026)	(0.016)	(0.006)	(0.024)	(0.014)	(0.007)	(0.019)	(0.011)	(0.007)
lnLLRGL	0.035	0.175***	0.035	0.039	0.172***	0.039	0.039	0.172***	0.039	0.041	0.170***	0.041	0.041	0.169***	0.041	0.041	0.170***	0.041
	(0.053)	(0.039)	(0.024)	(0.054)	(0.055)	(0.033)	(0.054)	(0.045)	(0.033)	(0.054)	(0.057)	(0.032)	(0.054)	(0.058)	(0.032)	(0.054)	(0.046)	(0.033)
lnETA	-0.207**	-0.552***	-0.207***	-0.217*	-0.485***	-0.217***	-0.220*	-0.562***	-0.220***	-0.233*	-0.516***	-0.233***	-0.235**	-0.515***	-0.235***	-0.229**	-0.556***	-0.229***
	(0.098)	(0.126)	(0.053)	(0.115)	(0.115)	(0.084)	(0.114)	(0.086)	(0.079)	(0.120)	(0.129)	(0.077)	(0.119)	(0.129)	(0.078)	(0.115)	(0.085)	(0.080)
lnBDTD	0.157	-0.019	0.157***	0.127	0.013	0.127*	0.122	-0.009	0.122*	0.114	-0.011	0.114**	0.109	-0.009	0.109**	0.109	-0.006	0.109
	(0.131)	(0.058)	(0.055)	(0.159)	(0.063)	(0.077)	(0.156)	(0.050)	(0.069)	(0.150)	(0.064)	(0.045)	(0.154)	(0.063)	(0.047)	(0.158)	(0.055)	(0.067)
lnLOANSTA	0.027	0.104**	0.027	0.014	0.092**	0.014	0.013	0.102**	0.013	0.016	0.092**	0.016	0.014	0.092**	0.014	0.012	0.102**	0.012
	(0.062)	(0.046)	(0.035)	(0.062)	(0.039)	(0.024)	(0.062)	(0.0420)	(0.024)	(0.061)	(0.042)	(0.018)	(0.061)	(0.042)	(0.017)	(0.062)	(0.040)	(0.024)
lnNIETA	-0.019	0.361***	-0.019	-0.009	0.353***	-0.009	-0.008	0.367***	-0.008	-0.010	0.342***	-0.010	-0.010	0.341***	-0.010	-0.008	0.358***	-0.008
	(0.089)	(0.079)	(0.053)	(0.088)	(0.095)	(0.056)	(0.088)	(0.077)	(0.056)	(0.088)	(0.096)	(0.047)	(0.088)	(0.098)	(0.048)	(0.088)	(0.076)	(0.056)
Macroeconomic Variables																		
lnGDP	0.001	0.120**	0.001	-0.017	0.062	-0.017	-0.020	0.084**	-0.020	-0.023	0.087*	-0.023	-0.030	0.088*	-0.030	-0.024	0.078*	-0.024
	(0.122)	(0.055)	(0.060)	(0.122)	(0.049)	(0.061)	(0.123)	(0.035)	(0.061)	(0.123)	(0.050)	(0.067)	(0.126)	(0.050)	(0.067)	(0.123)	(0.041)	(0.062)
lnCPI	-0.035	-0.100***	-0.035	-0.007	-0.024	-0.007	-0.008	-0.052*	-0.008	-0.005	-0.036	-0.005	-0.008	-0.033	-0.008	-0.010	-0.044	-0.010
	(0.090)	(0.037)	(0.041)	(0.085)	(0.035)	(0.046)	(0.085)	(0.027)	(0.044)	(0.084)	(0.037)	(0.040)	(0.084)	(0.036)	(0.042)	(0.085)	(0.036)	(0.045)
GFC	0.170***	0.199***	0.170***	0.162***	0.191***	0.162***	0.161***	0.198***	0.161***	0.161***	0.191***	0.161***	0.161***	0.192***	0.161***	0.160***	0.197***	0.160***
	(0.056)	(0.060)	(0.060)	(0.056)	(0.044)	(0.040)	(0.056)	(0.068)	(0.040)	(0.056)	(0.044)	(0.055)	(0.056)	(0.045)	(0.055)	(0.056)	(0.068)	(0.040)
Country Governance Variables																		
lnVA*DS	0.546	0.895***	0.546**															
	(0.603)	(0.218)	(0.224)															
lnPV*DS				0.120	-1.846**	0.120												
				(0.662)	(0.904)	(0.350)												
lnGE*DS							0.136	-3.002***	0.136									
							(0.545)	(0.546)	(0.228)									
lnRQ*DS										0.300	-0.383	0.300						
										(0.755)	(0.764)	(0.218)						
lnRL*DS													0.342	0.236	0.342			
													(0.802)	(1.198)	(0.274)			
lnCC*DS																0.223	-4.630***	0.223
																(0.579)	(1.672)	(0.243)
R^2	0.019	0.154	0.019	0.018	0.153	0.018	0.018	0.154	0.018	0.018	0.152	0.018	0.018	0.152	0.018	0.018	0.153	0.018
Adj R^2	0.008	-0.003	0.008	0.007	-0.004	0.007	0.007	-0.003	0.007	0.007	-0.005	0.007	0.007	-0.005	0.007	0.007	-0.004	0.007
F-statistic	1.736*	0.984	1.736*	1.656*	0.976	1.656*	1.659*	0.980	1.659*	1.669*	0.969	1.669*	1.672*	0.969	1.672*	1.668*	0.975	1.668*
BP & LM x^2	-	0.530		-	0.510		-	0.510		-	0.500		-	0.500		-	0.500	
Hausman x^2	-	12.521		-	12.537		-	12.971		-	11.586		-	11.530		-	12.244	
No. of Obs.	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917	917

Note: ***, **, * indicates significance at 1%, 5% and 10% levels respectively. Figure in parentheses ( ) are standard error.

Conclusion

It is significant and useful to examine the productivity levels of Islamic and conventional banking sectors using a new approach that primarily focuses on the concept of total factor productivity change. The primary purpose of this study is to provide empirical evidence on the impact of chosen determinants on the productivity of Islamic and conventional banks in Malaysia, Indonesia, Brunei and Singapore over the period of 2006 to 2016. In the first stage of analysis, a nonparametric data envelopment analysis–based Malmquist Productivity Index method is employed. The data are tested by a series of parametric (t-test) tests and nonparametric Mann-Whitney (Wilcoxon) and Kruskal-Wallis tests.

The empirical findings suggest that Islamic banks have statistically higher productivity levels compared to the conventional banks, which is mainly attributed to an increase in technological level rather than in efficiency level. The results are further substantiated by the analysis of the specific countries. The level of productivity in Islamic banks overall is significantly higher than in conventional banks in all countries. On the other hand, conventional banks have exhibited productivity regress due to a decline in technological changes, but they have been highly productive in terms of efficiency level during the period under study.

The results from the panel regression analysis reveal that liquidity (lnLOANSTA) and the global financial crisis (GFC) have a positive relationship with Islamic and conventional banks' TFPCH levels. The credit risk (lnLLRGL) and economic growth (lnGDP) have a significantly positive relationship with the productivity level of Islamic banks solely. While, the inflation (lnCPI) negatively influence the productivity level only on the Islamic banks.

The capitalization (lnETA) variable shows a negative relationship with the conventional banks' TFPCH but positive to the Islamic banks'. On the other hand, market power (lnBDTD) and management efficiency (lnNIETA) exhibits a positive relationship with the conventional banks' TFPCH levels but is negatively related to the Islamic banks'.

Moving on to the impact of country governance on the banks' productivity level, greater voice and accountability (lnVA) is found to have a positive impact on the Islamic and conventional banks. Furthermore, the dimensions of rule of law (lnRL) and regulatory quality (lnRQ) are positively connected with the conventional banks' productivity. Meanwhile, political stability and absence of violence (lnPV), government effectiveness (lnGE), rule of law (lnRL) and control of corruption (lnCC) negatively affect the TFPCH levels of their Islamic counterparts. Therefore, the results from the second stage indicate that most of the bank-specific characteristics, macroeconomic conditions and country governance determinants significantly influence the productivity levels of the Islamic and conventional banks. Only the sign of the relationship with the banks' productivity level varies.

This study has examined total factor productivity, its potential determinants and the effect of country governance on the productivity of Islamic and conventional banks. This information could have several implications for regulators, bankers, investors and researchers in Malaysia, Indonesia, Brunei and Singapore.

A mechanism to improve the banks' productivity level, which enhances the profitability of the banks, could be found by regulators and policymakers. Productivity is the most crucial concept in identifying banks' profitability; improving productivity level in the Islamic and conventional banking system is important to a country's economic growth, which depends on the banking institutions. In designing new policies and regulations for future undertaking, policymakers could focus on examining the specific dimension on the country governance side.

The empirical findings on the effect of country governance in all countries showed that policymakers should introduce several policies; the findings reveal significant effects of voice and accountability (lnVA) on the productivity levels of both Islamic and conventional banks. Free intervention of citizens in the governance process must be allowed in the policies created. This initiative could create greater transparency and credibility, which drive economic growth, which in turn influences the productivity of the financial institutions.

Additionally, the policies also should be implemented in the Islamic banks because the results show that political stability and absence of violence (lnPV), government effectiveness (lnGE), rule of law (lnRL) and control of corruption (lnCC) have significant effects on the banks' productivity level. First, the policies should oversee politicians' actions to avoid them mixing personal interest with public welfare. Second, policymakers must take initiative in controlling tax collection activities to improve the banks' investments and service demand. Third, the policies must contribute to Islamic banks to reduce their intermediation cost and risk-taking and encourage activities that lead to higher productivity levels. Next, the new policies implemented should be effective in controlling corruption to promote banking operations. These policies will be reflected in the higher productivity level of Islamic banks.

The potential bank-specific characteristics and macroeconomic conditions that influence productivity level have been identified in this study. The management teams of Islamic and conventional banks could use this information to improve their productivity levels and create a more sustainable, competitive environment in the future. They can also maintain a stable and healthy financial system to support the efficient allocation of resources and minimize the risks across the banking industry. Furthermore, the results provide a direction in which management should look for both technological and efficiency factors to improve the overall performance of their respective banks in future planning.

In addition, the information of this study could provide guidance for investors whose primary focus is to earn higher profit from their investments. Total factor productivity is one of the most important factors leading to higher or lower profitability. Therefore, the findings from this study could help investors to choose efficient investment portfolios by measuring the performance of the Islamic and conventional banks. Investors also can make wise decisions today that will determine the level of expected return in the future.

Finally, very few studies have used total factor productivity to examine the performance level of banks, particularly in the Islamic and conventional banks from Southeast Asian countries. Hence, the empirical results from this study will be useful to academicians to fill these scholarly gaps. Moreover, the findings revealed in the present study show the potential internal and external determinants of the productivity level in Islamic and conventional banks, which could be a guide to explore and obtain new findings. The results on the effect of country governance on the banks' total factor productivity also contributes new dimensions in the literature.

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LEVEL OF AWARENESS ON GOVERNMENT INITIATIVES IN CREATING SUSTAINABLE ENVIRONMENT

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***Abstract*:** *Level of awareness on recycling activities is important to the sustainability of our environment. Recycling awareness among households is critical as most of the solid waste is from household consumption. Although the government has tried to adequately equip households with knowledge and know-how to manage solid household waste through the different kind of environmental preservation programs, households who are the large group of people were expected not to know much about recycling. Nonetheless, empirical evidences show that households' recycling awareness is still very much limited. Hence, this study is carried out to address the above-mentioned issue by examining the level of awareness on recycling activities initiated by the government. The study employs quantitative research approach in which the 438 questionnaires are collected among residents in the residential areas of Selangor in 2018. The findings suggest households' level of awareness on recycling activities is at a moderate level, as shown, 66% claim that they have knowledge on recycling activities initiated by the government but only 16% claim that they have high level of awareness. It is expected that these findings will be beneficial to the local municipal councils to regulate a more effective and significant program and recycling campaign so that householders will have high awareness and lead towards a better participation in recycling.*

Keywords: *Sustainable Environment, Recycling Behavior, Level of Awareness, Government Initiatives*

Introduction

Environment sustainability is an emphasis given towards conservation and enhancement of the resource base and emerging economic growth. To be specific, sustainable environment is the rate at which renewable resources harvested and non-renewable resource depletion can be continued indefinitely. It has been argued that the government has in place various plans and initiatives since 1988 (Table 1) and it is believes that could significantly contribute towards

preserving the environment (Agamuthu & Dennis, 2011; Abas & Seow, 2014 & Sreenivasan, Govindan, Chinnsami & Kadiresu, 2012). However due to low level of awareness; it has been difficult to successfully manage recycling behavior among households.

Increasing of population and the pursuits of modern lifestyles are among the major cause for solid waste accumulation in Malaysia. Malaysia is facing problems with rapid growth of domestic waste which is generated from households (Afroz, Masud, Akhtar & Duasa, 2013). Budhiarta et al. (2011), reported that an average per-capita generation of municipal waste is about 0.85 kg/person/day in Malaysia and specifically about 1.5kg/person/day in Kuala Lumpur. In line with that, the Malaysian government through its local municipal councils has implemented various policies and programs to enhance resident participation in separating their domestic waste. This is important because the success of the waste separation program comes from a good separation behavior and practices among residents.

The Solid Waste Management and Public Cleanliness Corporation (SWCorp) has launched Separation at Source Initiatives (SSI) on September 2015 to foster good environment practices among households. Booklets and posters with information on categories of recyclable items and steps showing how to manage their solid waste correctly were distributed to household to prompt awareness on solid waste management. Aside of all this implementation, Zainu and Songip (2017) stated that municipal waste recycling in Malaysia is still far behind compared to other develop countries. In fact, the level of awareness among Malaysian in reducing household waste through recycling behavior is still low and it is at a rate of only 17.5% in the year 2017 (SWCrop). However, the government's target of increasing the nation's recycling rate to 22% by 2020, which would require a drastic transformation in habits and attitudes of the Malaysian public (Omran, Mahmood, Andul Aziz & Robbinson, 2009).

In the light of the discussion above, this paper attempts to examine the level of awareness among households in Selangor on recycling programs initiated by the Malaysian Government. The reason is because, the lifestyles in the urban areas have steered serious waste problem in Malaysia, and therefore there is a need to analyze the current level of awareness towards recycling so that the government and NGOs can successfully implement environmental related projects and to strategize ways to convince households to engage with recycling programs.

Table 1: Policy Evolution of Solid Waste Management in Malaysia

Plan / year	Action	Aim / objective	Achievement
Beautiful and Clean Malaysia (ABC) 1988	Ministry of Housing and Local Government (MHLG)	Produce a national uniform municipal solid waste system that was productive, environmentally sound and socially acceptable in Malaysia by the year 2010.	Policy was not officially endorsed by the National Council for Local Government implementation
National Strategic Plan for Solid Waste Management in Malaysia	Adopted in 2005 by the Government of Malaysia - proposed six strategies to guide solid waste legislative, institutional and infrastructural planning and management in Malaysia	Target of 22% for reduction and recovery, and a target of 100% for urban source separation by 2020	Provide framework for the development of the SWM Legislation, Master Plans, Waste

(NSP) /2002	including an Action Plan		Minimization and the SWM Facilities Master Plans
Master Plan on National Waste Minimization (MWM) / 2006	Outlined the detail guidelines and policy for waste minimization strategies, action plans for Federal Government, local authorities and pilot projects on waste minimizations	Provide Vision, Strategies and Roles of Stakeholders to minimize the amount of solid waste disposed in Malaysia. Targets is to achieve 11% recycling rate in 2010.	Not achieving
National Solid Waste Management Policy (NSWMP/2006)	Outlined the detail and policy documentation for waste minimization	Establishing an integrated & comprehensive solid waste management which is cost effective, sustainable & accepted by the public, emphasizes on environmental & public health protection, selective of affordable technologies.	Provisions & the implementation of Policy through the hierarchy & emphasis on waste reduction through 3R activities, intermediate treatment and final disposal.
Solid Waste and Public Cleansing Management Act (SWPCM/ 2007)	Regulates the management of solid waste and public cleansing to ensure the maintenance of proper sanitation in Peninsular Malaysia and the Federal Territories of Putrajaya and Labuan.	Controlled solid waste to denote the source and defines solid waste as scrap, unwanted surplus substance or rejected products arising from the application of any process but excludes scheduled waste, sewage and radioactive waste	Gazetted on 30th August 2007 and has not been enforced due to a lack of supporting regulations
SWM Corporation Strategic Plan (SP / 2009-2013)	To recommend and implement policies, plans and strategies including schemes for SWM. Identified seven focus areas which includes public awareness programme, monitoring services, financial management, HR & environment sustainability, ICT to meet customer needs.	Aims to achieve an increase in 3R awareness of 30%, a recycling target of 40% and the implementation of a deposit refund system of at least 30 firms by 2013	Yet to be implemented (2011).
Tenth Malaysian Plan (10MP) / 2011-2015	Provisions for 3R and includes aspects of Extended Producer Responsibility (EPR) such as take back system for producers & deposit refund system	To stimulate the national economy to achieve economic growth and investment	Unclear outcome

Source: Agamuthu & Dennis (2011)

Literature review

Recycling Behavior

Consumers' knowledge is recognized in consumer research as a characteristic that influences all phases in the decision process. Specifically, knowledge is a relevant and significant construct that affects how consumers gather and organize information (Alba and Hutchinson, 1987), how much information is used in decision making (Brucks, 1985) and how consumers evaluate products and services (Murray and Schlacter, 1990). According to Kaplan and Rogghe (1991), the state of one's knowledge about an issue impacts significantly upon decision making. Specifically, people dislike, and thus tend to avoid situations where they have insufficient knowledge to guide their behavior and where the possibility of confusion is great (Kearney & DeYoung, 1995). The above discussion explains why some people may choose not to adopt recycling activities because they feel that they do not know enough about recycling. Furthermore, the importance of knowledge and the impact of lack of knowledge in the decision-making process have been demonstrated in numerous studies. In a study of recyclers and non-recyclers, it was concluded that the attitudes or motives of the two groups were not that different, but there was a significant difference in their operational knowledge. Thus, confusion about the process of recycling was associated with no recycling behavior. In addition, studies have shown that knowledge generally influences pro environmental attitudes, which in turn motivate environmentally responsible consumer behavior (Kollmuss, & Agyeman, 2002; Zsoka, Szerenyi, Szechy, & Kocsis, 2013). Similarly, Ibrahim (1999), concluded that information and knowledge about recycling were both significant predictors of recycling behavior.

Empirical support for the influence of consumers' recycling knowledge on their household recycling behavior is contradictory. Knowledge of people on environment in general has long been recognized as among the most crucial factors influencing recycling (Nixon and Saphores, 2009, Burn and Osakamp 1986). This is further supported by Babaei et al. (2015) which have shown that recycling knowledge is a significant predictor of household recycling behavior. Therefore, a good recycling knowledge should supposedly able to increase the level of awareness, and thus, leads to a high participation on recycling activities.

Awareness

Generally, awareness is relating to a situation which often label as situation awareness. According to Endsley (1995), situation awareness is informally and intuitively described as "knowing what's going on" and, more formally, as "the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning and the projection of their status in the near future". There are three levels of situation awareness (SA) namely, perception (including "noticing"), comprehension, and projection. In the context of recycling behavior, situation awareness has a crucial role to play. Recycling awareness is important to overcome environmental problem and it is a significant contributor to sustainable environment. Household should be more concern about this because they use a lot of product that are recyclable such as plastics, paper, boxes, and glasses and electronic.

Furthermore, the lack of awareness towards recycling will be a problem to the earth in 10-20 years to come. As past researchers have reported that the level of awareness is low, so the trend to recycle among households will definitely be low. As such, it is very important to investigate the level of awareness among the households which will affect their behavior towards the environment. With reference to Endsley's (2017) approach of situation awareness, high level of awareness depends on the success of lower levels. For this research, researchers have identified three level of awareness, which are low, moderate and high. When

the household possess low level of awareness, most likely the recycling behavior will be low and may results in the increase of illegal disposal.

Afroz and Masud, (2010) conducted a research in Kuala Lumpur to examine the public perception of local environment quality, awareness and environmental performance and their willingness to pay for improving waste management. The findings reveal that the level of awareness of the households about the negative impact of improper waste management is low in Malaysia compared to other developed countries of the world. In such situation, there is an urgent need to examine the current state of awareness of the public on recycling activities as the government has put in more efforts into proper waste management.

Background of the Respondents

This section describes the background of the respondents from Selangor totaling of 438 and collected during May – August, 2018.

Table 2: Background of Respondent

Variables	Frequency	Percent (%)
Gender		
Male	152	34.7
Female	286	65.3
Age Group		
< 25 years	0	0
25-34 years	46	10.5
35-44 years	218	49.7
45-54 years	154	35.2
> 55 years	20	4.6
Ethnicity		
Malay	178	40.6
Chinese	143	32.6
Indian	98	22.4
Others	19	4.4
Type of Residence		
Owner	375	85.6
Tenant	63	14.4

Among the total respondents of 438, the descriptive analysis in Table 2 showed the gender distribution of males and females, in which males constitute 34.7% (152) and females 65.3% (286).This indicates that females are the majority in the field of study. The ages of the respondents ranged between 25 to 67 years. In this regard, the descriptive analysis in Table 2 showed that the age group of between 25 – 34 years old were 10.5% (46), 35 – 44 years old were 49.7% (218), and 45 – 54 years old were 35.2% (154). This indicated that the respondents in that age category of 35 to 44 were more than the other age levels. With regard to the respondents' ethnicity, the distribution is 40.6% (178) are Malays, 32.6 % (143) are Chinese, 22.4% (98) are Indians and 4.4% (19) are those who fall under the category of others. The results also indicated that majority of the respondents, which is 85.6% (375) are owners themselves while the rest 14.4% (63) are tenants

Results

By adapting to Endsley (2017)'s situation awareness, a descriptive statistic based on frequency was performed in order to assess the level of awareness among the households on the government recycling initiative. The results reviewed that 66 % of the respondents are moderately aware about the recycling initiatives while, 18% of the respondents indicated low level of awareness in responded to government initiatives. Only 16% of the respondents exhibited high level of awareness towards government recycling initiatives.

The findings sum up that the maximum number of respondents (82%) is aware of the government programs on recycling activities. Thus, majority of the households in Selangor have awareness on recycling activities and knew that recycling is important to preserve the environment and its resources. Furthermore, the analysis on the level of awareness indicates that majority of the households in Selangor have received sufficient information on government initiates on recycling programs as well as the benefits of recycling towards the environment.

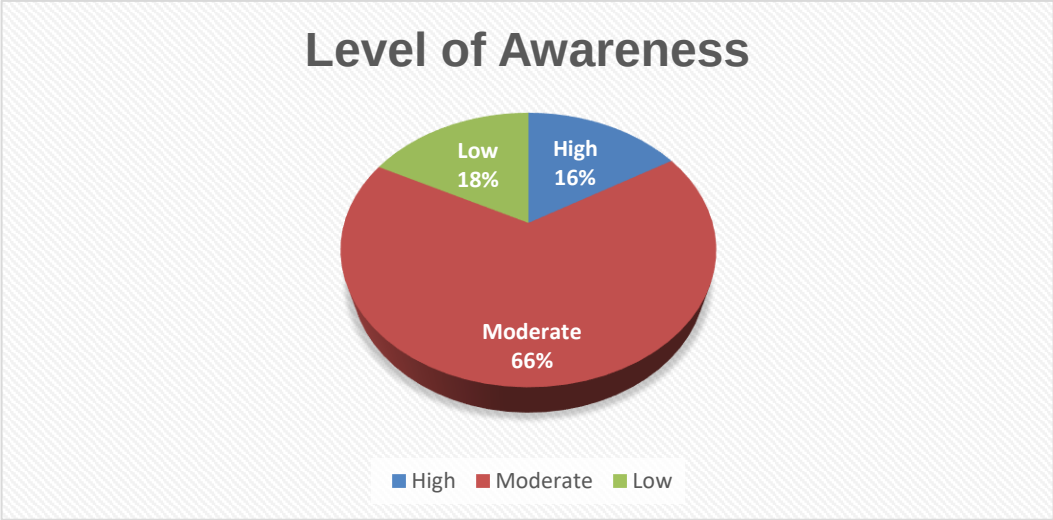

Figure 1: Level of recycling awareness among households in Selangor

Conclusions and Recommendation

This study attempts to assess the level of recycling awareness among households in the state of Selangor, Malaysia. The overall findings revealed that the level of recycling awareness on government initiatives and programs on recycling is at a moderate state. Despite having proper guidelines on recycling programs provided by the National Solid Waste Management Department for local authorities, the level of enforcement has failed to achieve its target. It is clear that, the success of recycling not only depends on the awareness level but it is also very much related to attitude (Ramayah, 2012). Guerrero, Maas & Hogland (2013) found that inefficiency of the system such as lack of the equipment and infrastructure influences individual's behavior towards recycling.

The results of the study would be useful indicator to change agents, specifically the government. The government could educate and cultivate a culture of recycling among its citizen. It is not enough by just carrying our programs to enhance awareness, but what is important is to induce high level of participation on recycling activities. The relevant institutions should strategize in spreading information on the availability of recycling facilities, as well as the perks of recycling programs. This can be done in many ways, for instance, through leaflet distributions in the neighborhoods, or even by embedding the

recycling programs into their residential community events, using available media such as televisions and radio networks, billboards, newspapers and magazines, and publicize it on busses, train stations and LRTs. By doing so, households will not only be informed continuously about recycling benefits but also to encourage them and the ways to recycle. This may lead to a major participation on recycling programs, and hence it is believed that the authorities will be able to tackle the poor recycling rates and waste management in the country.

One of the most serious problems that hinders the success of a recycling program in Malaysia is the shallow regulations and guidelines. Alias, Abd Manaf, Ariffin & Abdullah (2018) commented that there is a serious gap in terms of the existing policies, guidelines, and standards set by the government due to the broad definition of solid waste. This would only create more confusion among the householders even if they wanted to practice recycling. Thus, the government should set more definite and clearer definition of solid waste so that the householders will have a better picture of the recyclable items. In addition, national, state and local authorities should formulate regulations, policies and programs that are sustainable such as barter system or trade-in with some incentives in return. Different types of recycle bins should be provided to household to ease on the process of waste separation. Additionally, convenient access to public recycle bins should be provided as well as the authorities should make it mandatory for each neighborhood to have a notice board that notifies the schedule of waste/recycle collections.

Penalty or fees should be imposed to those industries that are directly or indirectly creating waste of household to the environment such as restaurant and packaging industry. Restaurant should do a proper forecasting of their sales and customer needs in order to minimize wastage, educate or even fine their customers that left over too much foods. The packaging industry should rethink how to minimize the packaging materials used by increasing the size or reducing the quantity in a bottle/pack such as 2000ml of shampoo instead of 200mlx10, or a package of 600g per unit of coffee/peanut instead of 20gx30 in a unit. The innovation in the packaging industry may even consider using safe-to-consume packaging whereby the package itself is edible or it can be used as a fertilizer. Alternatively, the retailers or manufacturers should introduce marketing programs such as redemption of vouchers from the recyclable and to use it for the next purchase. Finally, all the manufacturers should be responsible and rethink about their product design, during process and the disposal stage of product life cycle which directly will reduce the solid in the environment.

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QUALITY VERSUS QUANTITY: DISCLOSURE OF FORWARD-LOOKING INFORMATION AMONG SELECTED PUBLIC LISTED FIRMS IN MALAYSIA

Abstract: *This paper aims to investigate whether or not the disclosure level and disclosure quality of forward-looking information can give the same impact and significant impact on stock return among 180 of Malaysian public listed firms with the highest market capital in the Malaysian stock market are selected from nine main industries listed on Bursa Malaysia in year 2013. Based on cross sectional regression analysis, findings show that the disclosure quality of forward looking information is positive and significantly related with firm's stock return under earnings-return model. However, relationship between disclosure level of forward-looking information and firm's stock return is not significantly related in any of the valuation models. The empirical findings suggest that disclosure quality of forward-looking information is significant to improve firm's stock return instead of focusing on the disclosure level of forward-looking information.*

Keywords**:** *Disclosure quality; disclosure level; forward-looking information; stock return; Malaysia.*

Introduction

Over the decades, the competency issue of corporate disclosure practices has received huge attention from researchers and professionals. The increasing difficulty of regulations, business perspectives and firm's strategies make it relatively difficult to digest the substance of financial statements without supplementary narrative explanations. In Malaysia, corporations are encouraged to report afar the mandatory disclosure in corporate reporting and, at the same time, external users' crave for selected items of voluntary information in the corporate annual reports. Surprisingly, the importance of disclosing such information does not seem to attract the attention of the firms to disclose it. Hossain et. al. (1994) report a mean score of 15.8 per cent, Haniffa and Cooke (2002) at 31.3 per cent, Ahmad Ghazali and Weetman (2006) at 31.4 per cent and Hashim and Saleh (2007) at only 10-11 per cent from total voluntary disclosure items which are identified as important. This proves that the extent of voluntary disclosure, including forward looking information in annual reports documented, are low in Malaysia. Some probable reasons are a) limited budget and cost and b) fear of releasing too much information to their competitors (Ahmad Ghazali, 2009).

Although it is not mandatorily required, some of most important information is still not disclosed even though prior literatures show that this type of information is helpful for investors and analysts. In addition, Bany *et al*. (2010), Jaggi *et al*. (2009), Andres (2008), Faccio and Lang (2002), Claessens *et al*. (2000) and La Porta *et al*. (1999) support the significant presence of pyramid firms in East Asian, where they find that more than half of East Asian corporations and economies (measured in terms of total corporate assets) are controlled by pyramid firms. Based on information effect hypothesis (Fan and Wong, 2002), it is argued that concentrating ownership

avoid leakage of proprietary information when decision privileges are limited to specific persons. This strategy can prevent competitors from accessing proprietary information for example, their rent seeking activities. This strategy works in East Asian environment where it is common to have political lobbying activities with pyramid ownership structure. In other words, this strategy works in an ownership concentration environment by restraining the information flow to the public and reduces the possible competition of the political rent-seekers.

The level of voluntary disclosure, including forward looking information is low in Malaysia due to the lack of awareness, efforts and knowledge among Malaysian firms on costs and benefits of such additional disclosures. To ensure that the information disclosed is favorable to the firm, the repayment of disclosing it must offset the efforts and costs that are being borne by the firms. Users' preference of voluntary information items seems to be the highlighted issue since this group is wide-ranging with each having its own set of information needs. Hashim and Saleh (2007), in their study regarding voluntary annual disclosures by Malaysian multinational corporation, claim that the information provided by management on forward-looking information is important to professional investors and analysts.

Uyar and Kilic (2012) also claim that disclosing forward-looking information can lessen the information asymmetry between firms and stakeholders. This will allow them to make better decisions about the firms by reducing the information gap between the two parties as compared to other information disclosure fields. All of these findings may well contribute to the efforts made by the International Accounting Standards Board to provide a broad, non-binding framework for the presentation of management commentary in relation to the financial statements that have been prepared in accordance with International Financial Reporting Standards (IFRSs). In this light, the Malaysian Accounting Standard Board (MASB) has issued MASB ED 76 Management Commentary (Guidance) for public comment on 30th April 2012 and has then been issued (on 28th February 2013) as Statement of Principles 3 (SOP 3) Management Commentary. This SOP is set out to guide the Management on the presentation of commentary that is consistent with the principles to a) provide management's view of the entity's performance, position and progress, b) to supplement and complement information presented in the financial statements. In aligning with those principles, management commentary shall include forward looking information and information that possesses the qualitative characteristics described in the Conceptual Framework for Financial Reporting. Issuance of SOP 3 has bring an awareness to the firms to provide information that is forward looking and future-oriented to complement and balance the investors' needs on the accounting information in the annual report.

At the same time, arguments that new accounting rules and promotion on disclosing narrative information only increase the quantity, not the quality of accounting information, since many of prior studies generally assumed that the extent of disclosure is an adequate measure of the quality of disclosure. This situation has shifted the increasing role of narrative disclosure in financial reporting and the quality issue of narrative information disclosure onto a different level. Most of empirical studies do not make a clear division between the quantity and quality of disclosure. As it is generally assumed that the quantity of information has an implication in determining its quality, quantity measures are often used as proxies to measure quality of the disclosure. Nevertheless, the measurement of the disclosure quality is documented as an important question that still lingers and the significance of developing measures for disclosure quality is emphasized in literature.

As the measurement of disclosure quality is fundamentally complex, its measurement cannot be carried out by implementing a simplistic approach, such as, the suggestion that the use

of the extent of disclosure be used as a proxy of its quality. To our best knowledge, few studies have search or tested the significant impact between disclosure quality and quantity of forward looking information on stock return of the firm in Malaysia. Thus, this study focuses on the two sides of forward looking information, which is, the quality and quantity of forward looking information by adopting the measurement quality developed by Beretta and Bozzolan (2008). This study will also look at how the quality of forward-looking information disclosed effect the stock returns of a firm. Stock returns have been the focus of many studies since it capture the investors' reaction and perception on every moves or steps taken by the firm; in this case, the information disclosed by the firm (Bar-Yosef and Prencipe, 2013; Wang and Hussainey, 2013).

Review of theory

Signaling theory is useful for describing behavior when two parties (individuals or organizations) have access to different information (Connelly *et al.,* 2011). Typically, one party, the sender, must choose whether and how to communicate (or signal) that information, and the other party, the receiver, must choose how to interpret the signal. In this context of study, the firms are the information sender (signaler) and the corporate reporting users are the receiver, who will interpret the information disclosed by the sender. Information provided and disclosed will depend on what the firms want to signal to the users and usually, it deals with the issue of information asymmetry problem and shows how that problem can be reduced by the party with more information signalling it to others (Spence, 2002;Connelly *et al*., 2011 and Dainelli *et al.*, 2013).

As the signaling theory involves in communicating firm quality or value through communication channels such as voluntary disclosure, product warranties or the financial accounts, this also indicates that this theory concerned with signalling firm quality and this can relate to any aspect of the firm including financial, strategy and non-financial aspects of quality, including forward looking looking information disclosure. In the case of forward looking information disclosure, managers provide future oriented information to investors to help them in making investment decisions. According to signalling theory, managers who expect a high level of future growth signal that to investors. Several prior studies confirm the predictions of signalling theory that suggests a high quality firm will not shy away from telling the market about their quality (Kanagaretnam *et al*., 2007 and Mitchell, 2006). Managers of firms with neutral news also have an incentive to report positive news so that they are not suspected of having poor results.

Managers of firms with poor performance have incentives not to report their bad news. This claim is consistent with Kothari *et al*. (2009) analysis. They contend that firm's management tend to conceal or postpone the disclosure of bad news because the magnitude of the market reaction to bad news is higher than to good news. On the other hand, firms also have an incentive to report their bad news to avoid litigation costs of failure to disclose and maintain the firms' equity value. According to Skinner (1994), managers preempt bad news (such as earnings decline) in order to avoid such litigation and reputational costs. Hence, signalling theory ssumes that firms will disclose more information than is demanded. To be effective, the signal must not be easilly copied by another firm and must conform to the actual quality of the firm (Morris, 1987).

Corporate disclosures supposed to reduce information asymmetries between corporate insiders and parties external to the firm. Indeed, information asymmetry problems are a necessary condition for signalling theory, and without it the need for signalling theory does not exist (Morris, 1987). Reducing information asymmetries is one of the incentive for forward looking

information disclosure underlying the economics based theories since information asymmetries can lead to problems of adverse selection and moral hazard, both of which are costly. Signalling theory addresses adverse selection problems since it is concerned with conveying information about the quality of various aspects of the firm to investors and capital providers.

Research literature and hypotheses development

Disclosure level of forward-looking information

Most of prior studies examine the determinants, firm's characteristics and factors that affect level of voluntary disclosure in firm's annual report as a whole (Hashim and Salleh, 2007; Ghazali, 2008; Kumar, 2013) and on disclosure level of forward-looking information specifically (Aljifri and Hussainey, 2007; Wang and Hussainey, 2013; Al-Najjar and Abed, 2014 and Alkhatib, 2014).

Study by Hashim and Salleh (2007) examines the relationship between the level of information disclosures and characteristics of some multinational companies (MNCs) in Malaysia. Based on six industries covered to investigate the disclosure level of voluntary information gathered from annual reports of listed MNCs on Bursa Malaysia, the results show that disclosure level of voluntary information is positively related to size of the company and the type of audit. In the meantime, the multinationality degree is significantly related to the disclosure level of projected information. Their overall results also conclude that the factors explaining voluntary annual report disclosures may be different according to the types of voluntary information presented in the annual reports.

Another study in Malaysian market on disclosure level of voluntary information is by Mohd Ghazali (2008). With the purpose of the study to identify ''qualitative'' factors influencing voluntary information disclosure in annual reports, Mohd Ghazali (2008) conducted a semi-structured interviews that were held with twenty-seven market participants in Malaysia to obtain opinions on issues associated to disclosure of voluntary information. Finding based on the analysis of interview responses exposed that factors influencing voluntary disclosure in annual reports comprise the quality of management, gaining analyst trust and promoting company shares, good news versus bad news, the existence of other channel of communication, governance structure and market forces.

Evidence on the voluntary disclosure of intangibles information for U.S. listed Asian companies has been provided by Kumar (2013), where one of objective is to examine the effect of firm size, ownership concentration, proportion of foreign revenue, and leverage on voluntary disclosures of intangibles information by U.S.-listed Asian companies. The results point out that larger firms, firms with greater ownership dispersion, and firms with lower leverage provide more voluntary disclosure of intangibles information. However, all the three studies discussed above discuss on the disclosure level of voluntary information as a whole, not specifically on forward-looking information disclosure. In addition, the objectives of the studies only considers aspects that affect disclosure level of the voluntary information, not on how the voluntary information affect to other aspect like firm's stock return or cost of capital for instance.

Some prior study that examines the effects of increasing the level of forward-looking disclosure on the stock market is Hussainey *et al*. (2003). They provide evidence that high levels of forward-looking disclosure in annual report narrative sections improve the stock market's ability to anticipate future earnings changes. Mun *et al*. (2011) examines the relationship between levels of annual report voluntary disclosure and the market reaction to the next interim earnings announcement in a low regulated and analyst following market. Using direct measures for level

of voluntary disclosure and market effects of such disclosure, they examine the first order effects of voluntary disclosure and the results show that preannouncement voluntary disclosure significantly reduces the price and volume reactions in the earnings announcement period. They also extend the analysis to investigate trading behavior during the earnings announcement period, and observe the trading behavior. Their finding concludes that voluntary disclosure in annual reports can be viewed as an important determinant of preannouncement information accuracy in markets with low regulation and analyst following.

The inadequacy of traditional financial accounting to report forward-looking information leaves average investors at a disadvantages compared to knowledge insiders and that may lead the company to face the risk of insider trading (Vergauwen and Alem, 2005).Therefore, voluntary disclosure of forward-looking information could be a firm's staretegy to reduce the information asymmetry between firm and external users of information. A reduction of information asymmetry has advantages, such as a lower cost of capital and higher market liquidity. Futhermore, the better assessment and belief of firm's future wealth and performance might raise firm's share price, and thus, the market capitalisation (Bozzolan *et al*., 2009).

Based on the literature discussed, we expect the level of forward looking information might reduce information asymmetry between firms and financial users, especially investors. In turn, reduction of information asymmetry has advantages, such as a lower cost of capital and higher market liquidity. Futhermore, the better assessment and belief of firm's future wealth and performance might raise firm's share price, and thus, the market capitalisation (Bozzolan *et al*., 2009). Thus, the first hypothesis of this study will be:
H1: Disclosure level of forward-looking information is positive and significantly related with stock return of the firm.

Disclosure quality of forward-looking information

Beretta and Bozzolan (2008) argue the idea that the disclosure quantity is not a good proxy for the disclosure quality. They proposed an index for quality disclosure from the adoption of multidimensional frameworks as an appreciation of disclosure discussed. They show systematically that the proposed framework captures magnitude of annual report disclosure that are considered valuable by financial analysts in forecasting earnings and that the proposed measure of disclosure quality has a stronger positive statistical association with accurateness and a stronger negative association with the dispersion of financial analysts' earnings forecasts compared to straightforward index of disclosure quantity has.

There are many approaches on measuring quality of information disclosed suggested by several studies based on the improvement from the quality measure. For example, suggestion by Hooks *et al*. (2002) to adopt consensus-reaching methodology for quality assessment weighting the number of disclosed items with the quality of the communication that subjectively evaluated by researchers, expert accountants, and the chief financial officers of analyzed firms. Botosan (1997) presents a disclosure index that awards one point for each item disclosed. The scoring procedure weights quantitative information more heavily than qualitative information on the assumption that quantitative information is more relevant for investors and reinforces the credibility of the disclosed information.

Similarly, Robb *et al*. (2001) propose a weighting procedure by assigning to each piece of information a weight of one if there is no disclosure, two if there is some disclosure, and three if there is extensive disclosure. The extra score given by Botosan (1997) and Rob *et al*. (2001)

clearly show that they consider information that may reflect more attention from the users as important and have the quality to assist the users in decision making process.

Beattie *et al*. (2004) propose an alternative approach to disclosure quality by proposing an alternative measure for disclosure quality that defeat the weaknesses of unidimensionally weighted indexes. They identify that the measurement of disclosure quality is essentially complex as it is an abstract as well as subjective concept. Thus, by referring to topics and subtopics of the Jenkins report, they suggest the idea that disclosure quality does not depend only on disclosure quantity but also on how disclosure is broaden among different topics. As a result, their framework offered a richer descriptive profile of a firm's narrative disclosures than the simple count of disclosed items.

Al-Najjar and Abed (2014) aims to observe the importance of corporate governance mechanisms and investigates the relationship between the quality of disclosure of forward-looking information in the narrative sections of annual reports and the governance mechanisms for non-financial UK listed firms. Using cross sectional regression analysis to examine the impact of the corporate governance mechanisms on forward-looking information, the results show that board size and the independence of the audit committee are associated with the level of voluntary disclosure of forward-looking information. However, this study uses the disclosure level of forward-looking information as a proxy for disclosure quality of forward-looking information. Thus, it can be argued based on the idea that the disclosure quantity is not a good proxy for the disclosure quality.

Wang and Hussainey (2013) examine the impact of corporate governance on the disclosure level of forward-looking statements in the narrative sections of annual reports whether the statements that are driven by governance are useful about future earnings. However, they are aware that their empirical findings, despite their robustness, are subject to limitations regarding their measure of the disclosure scores. They admit that their measure of the disclosure scores is not able to consider the quality of the information in forward-looking statements. Users of corporate narrative reporting are expected to be more interested, not only in disclosure quantity, but also in disclosure quality. Thus, they suggest that future research could benefit from developing a quantitative measure for the disclosure quality of narrative reporting which is considerably difficult for studies with large-scale samples.

Based on literature discussed above and after consideration how the aggregate signaling occurs between disclosures of forward-looking information by firms could have implications for signaling firm quality between the organization and its investors, this study will use signaling theory to explain the relationship expected between disclosure level of forward-looking information and firm's stock return. Thus, the second hypothesis of this study will be:

H2: Disclosure quality of forward-looking information is positive and significantly related with stock return of the firm

Research design and methodology

Data collection

The sample in this study consists of 180 Malaysian public listed firms with the highest market capitalization from nine industries in Bursa Malaysia. They are the a) consumer product, b) industrial product, c) construction, d) trading and services, e) infrastructure project, f) hotels, g) properties, h) plantation, and i) technology industries. Only firms with highest market capitalization in Bursa Malaysia are considered since larger firms are expected to produce additional information for management purposes and can afford the costs of additional disclosure

in annual reports (Camfferman and Cooke, 2002; Mohd Ghazali, 2009). This list of firms excludes firms from the financial, banking, insurance, trust, close-end funds and securities sectors since they are subject to different rules from other firms in other sector (Hashim and Saleh, 2007). Data on stock return and other financial data are gathered from Datastream.

Measurements will be made on the disclosure level and disclosure quality of forward looking information. Thus, disclosures regarding forward-looking information are collected from annual report, specifically, from the Chairman and Chief Executive Officer (CEO) Statement section. In the context of this study, Chairman and CEO Statement will be use to search for the forward-looking information as these sections are more likely to contain this type of information (Wang and Hussainey, 2013). This study will only consider the data for the year 2013. This is due to two reasons. Firstly, this study limits the analysis to one year because firms' disclosure policies are relatively stable over time (Botosan, 1997). The claim made by Botosan (1997) is based on findings by Healy *et al.* (1995), where they are able to identify only 90 'large and sustained' increases in the Association for Investment Management and Research (AIMR) disclosure rankings in a sample of 595 firms in 23 industries over the period 1980 to 1990. Thus, this is the first reason to enlarge sample size by adding cross-sectional observations rather than observations over time, as year-to-year disclosure observations for a given firm are not independent. Secondly, Corporate Disclosure Guide issued by Bursa Malaysia as part of Bursa Malaysia Listing Requirement on 22 September 2011 are less likely to attract the attention of firms to disclose forward looking information in their corporate report. That might contribute to the efforts made by the International Accounting Standards Board to provide a broad, non-binding framework for the presentation of management commentary in relation to the financial statements that have been prepared in accordance with International Financial Reporting Standards (IFRSs). In this light, the Malaysian Accounting Standard Board (MASB) has issued MASB ED 76 Management Commentary (Guidance) for public comment on 30th April 2012 and has then been issued (on 28th February 2013) as Statement of Principles 3 (SOP 3) Management Commentary. Perhaps, the publication of Corporate Disclosure Guide by Bursa Malaysia as part of Bursa Malaysia Listing Requirement and the issuance of SOP 3 has brought awareness on the firms to provide information that is forward-looking and future-oriented to complement and balance the investors' needs on the accounting information in the annual report in the current year.

Valuation models

This study investigates relationship between the disclosure effects of forward looking information on firm's stock return. In other words, this study is trying to investigate whether disclosure, disclosure level and disclosure quality of forward looking information is value relevant to the investors to rely on in their investment activities and decision making process as this study defines the value relevance as the ability of an accounting measure to capture or summarize information that affects firm value. Using this definition, researchers often measure value relevance as the association between an accounting measure and stock returns and operationalize the value relevance in two ways: using portfolio-returns approach and regression-variations approach (Francis and Schipper, 1999; Hung, 2001). A regression-variations approach measures the value relevance based on explanatory power of accounting information to measure market value; the ability of earnings to explain annual market-adjusted returns (return model); and the ability of earnings and book values of assets and liabilities to explain market values of equity (price model). Both the return and price models are used in the regression-variations approach as

valuation models in assessing the value relevance of accounting information. Return models developed by Easton and Harris (1991) and price model developed by Ohlson (1995) will be used in these study.

This study will also uses the event study to investigate and analyze the reaction of the investors towards forward looking information disclosures, which then will affect stock return of the firm. An event study considered useful because, with assumption of rationality in the market place, the share prices will immediately reflect the effects of the event. In the context of this study, it is predicted that the disclosure of forward looking information for the first time on publication date of firm's annual report to the public can be measured over a short period., Therefore, abnormal return model will also be employed in this study to detect the disclosure of forward looking information effects during the event window (Brown and Warner, 1985).

Variables description

Dependent variables

For final empirical regression models that are employed in this study using abnormal return, return and price model, six measurements of dependent variables will be used to measure stock return of the firm. The first dependent variables from abnormal return model is the cumulative abnormal return of the firm for week 1 (ARW1), week 2 (ARW2), week 3 (ARW3) and week 4 (ARW4). The cumulative abnormal return for each of the week is calculated by aggregated the average abnormal returns over the event window for 7, 14, 21 and 28 working days after the publication date of annual report respectively. Abnormal return is calculated for each of the firm for all the days and then determined by subtracting the expected return from actual return [Ri-E(Ri)]. This measurement will be used to calculate stock return of the firm to investigate how the stock price will be affected in short term time period, which is a week and up to fourth week after the event date (Brown and Warner, 1985; Mackinlay, 1997; Hung, 2001)

Second dependent variable used to calculate stock return (SR) from return model is the cumulative net-of-market 12-month stock returns at year, calculated as the difference between stock price of the firm at the end of the year with stock price of the firm at the beginning of the year plus dividend of the firm at the year divided by stock price of the firm at the beginning of the year $[(P_{it} - P_{it-1} + D_{it}) / P_{it-1}]$. The same measurement was employed by Jung and Kwon (2002) in their study of ownership structure and earnings informativeness. The annual earnings per share (EPS) is the absolute amount of annual EPS reported by firm. This measurement of stock return is used to capture the effect on stock return in yearly basis, which consider the changes of stock return from prior year to current year.

The third dependent variable used to represent stock return of the using price model is market value of equity (MV). Market value per share of the firm four months after the fiscal year end will be used to measure the market value of equity of the firm. This measurement of stock return is used to capture the stock return using its market value or current stock price four months after the fiscal year ends.

Independent variables

The disclosure level of forward-looking information will be used to test hypothesis 1 (H_2). This hypothesis examines the relationship between the disclosure level of forward-looking information and stock return. Previous literature have developed and used variety types of measurements for level of voluntary disclosure. Botosan (1997) has developed an index for voluntary information that covers all types of voluntary disclosures used in other past studies, including, projected

information that represents forward looking information. The same measurement for level of voluntary disclosure has been used in many prior literatures on voluntary disclosure (Hashim and Saleh, 2007). However, this study will use the NVivo 10, a computer-based content analysis and the procedure has been developed by Hussainey *et al.* (2003) to identify the level of forward-looking statements in narrative annual reports. The same procedure is used by Wang and Hussainey (2013) and Al-Najjar and Abed (2014).

Keywords search are use to identify forward-looking information in the related sections of the annual reports. The following list of 35 forward-looking keywords developed by Hussainey *et al.* (2003) will be use, which are *accelerate, anticipate, await, coming (financial) year(s), coming months, confidence (or confident), convince, (current) financial year, envisage, estimate, eventual, expect, forecast, forthcoming, hope, intend (or intention), likely (or unlikely), look forward (or look ahead), next, novel, optimistic, outlook, planned (or planning), predict, prospect, remain, renew, scope for (or scope to), shall, shortly, should, soon, will, well placed (or well positioned),* and *year(s) ahead*. The *future number of years* will also be considered into account in the list of forward-looking keywords. For the purpose of this study, the following lists of twelve earnings-related keywords from Hussainey et al. (2003) are also use as the identification of the information that is relevant to the stock market in terms of assessing the firm's future earnings is made. They are *benefit, breakeven, budget, contribution, earnings, EPS (Earnings per Share), loss, margin, profit, profitability, return,* and *trading*. The approach of Haniffa and Cooke (2005) is borrowed to create a "Disclosure Score Ratio" (DSR), by converting the absolute score generated by the NVivo to a percentage form. Thus, the score for level of forward looking statement will range between 0% to 100% or 0.00 to 1.00. Score for disclosure level near to value 1.00 indicates higher disclosure level of forward looking information as compared to value that near to 0.00.

Measurement of quality will be based on the quality index designed by Beretta and Bozzolan (2008). The robustness of this index has been assessed by different methods and it has been recognized as a possible measure to capture the quality of disclosure. Other literatures that use the same measurement index to capture quality of disclosure are Bozzolan *et al*. (2009) and Bravo *et al*. (2009). This index is claimed to be able to capture both the quantity and quality of forward-looking information disclosed by the firms in their annual reports. It is also designed as a multidimensional framework for the appreciation of disclosure in order to consider both the quantity of information disclosed and the richness of its content. However, this study will only consider the richness index as a proxy for quality of forward looking information as the measurement for quantity has been analyzed in the separate analysis using different method. Furthermore, the quality effect that is the main focus of this study will consider only index that can capture the meaning of the quality itself; which is richness of the forward looking information without taking into consideration of the quantity aspect. This is to shift away the assumption that quantity can be a proxy to quality.

The richness index (RCN) aims to focus only on measuring disclosure quality that incorporates two other dimensions, a) width and b) depth. Width (WID) depends on both coverages (COV) of important topics. 'Topics disclosed at least once' divided by 'total number of topics considered' and by 'dispersion (DIS) of disclosure' measures concentration of the items disclosed. The items that are considered in forward-looking disclosure are based on suggestions from the Jenkins report (AICPA, 1994). The items are firm's strategy and corporate background which include four items, a) financial structure, b) corporate structure, c) organizational structure and d) operations. Finally, the external environment will include six items; 1) political, 2)

economic, 3) financial and 4) social items, 5) environmental topics, 6) industry and legal aspects. Coverage and dispersion are measured as below:

$$COV_i = \frac{1}{st}\sum_{j=1}^{st} INF_{ij}$$

$$DIS_i = \frac{\sum_{j=1}^{st} P_{ij} \ln p_{ij}}{\ln st}$$

where:

INF_{ij} = value of '1' if the annual report of company *i* discloses forward-looking information about subtopic *j*, and 0 otherwise.

P_{ij} = amount of information disclosed in subtopic *j* (number of sentences) divided by total disclosure of company *i* (total number of sentences with forward-looking information).

S_t = number of topics (9 topics).

The value of width dimension is obtained as the arithmetic mean of coverage and dispersion dimensions:

$$WID_i = \frac{1}{2}(COV_i + DIS_i)$$

It is assumed that higher coverage (which refers to the fact of enlightening information about higher number of relevant topics) is related to the richness of the information provided. Higher dispersion (which maintains that information quality will be greater when information published about each of the topics considered is high instead of disclosing only a few information units about some of them) are associated to information richness.

Depth (DEP) depends on the type of measure that is used in an information unit (MSR), on the communication of the economic sign of the disclosed items (ES) and on the outlook profile of disclosed information (OTL). Sentences containing information about measures and economic sign, as well as information about actions, programs, or any information that is useful for forecasting must contribute to the quality of global disclosure for a company. Therefore, these features are expected to be related to information richness.

Firstly, the economic sign and measure index (ESM) is calculated as follows:

$$ESM_i = \frac{1}{2}\left(\frac{1}{id_i}\sum_{j=1}^{id_i} MSR_{ij} + \frac{1}{id_i}\sum_{j=1}^{id_i} ES_{ij}\right)$$

Where:

Id_i = total forward-looking disclosure of company *i* (number of sentences).

MSR_{ij} = value of 1 if a measure of *j* forward-looking information (quantitative or qualitative) is disclosed in the annual report of company *i* and 0 otherwise.

ES_{ij} = value of 1 if the economic sign of information *j* is disclosed in the annual report of company *i* and 0 otherwise.

Secondly, the outlook profile index (OTL) is obtained via:

where:
OTL_i = outlook profile index for company *i*.
ACP_{ij} = value of 1 if the *j* information (forward-looking) disclosed by company refers to decisions, actions or programs and 0 otherwise.
FL_{ij} = value of 1 if the *j* forward-looking information disclosed by company *i* can be considered as useful for investors forecasts (sales, earnings, and other financial data).

Depth is obtained by averaging the economic sign, the measure index, and the outlook profile index.

$$DEP_i = \frac{1}{2}(ESM_i + OTL_i)$$

Finally, the quality index (QLI) is obtained when richness index been calculated as a result of averaging width and depth.

$$RCN_i = \frac{1}{2}(WID_i + DEP_i)$$

As a result, this index is composed of several dimensions that are expected to be related to information quality. The value of the index will ranges from 0.00 to 1.00. Thus, the score for disclosure quality of forward looking statement will range between 0.00 to 1.00. Score for disclosure quality (QLI) near to value 1.00 indicates higher disclosure quality of forward looking information as compared to value near to 0.00. Examples of coding rules and summary of measurement for disclosure quality of forward looking information is presented in Appendix A and B respectively.

Control variables

Control variables that are used in this study are 1) firm size, 2) risk, 3) growth and 4) industry specialization. Firm size is measured by the natural logarithm of the total asset of the firm for the year. Risk of the firm is measured via market beta. The market beta is calculated using daily stock prices. Growth prospects of the firm is measured by Tobin's' *Q* ratio. The *Q* ratio is calculated by dividing the firm market value of equity by book value of equity. Consistent with Claessens *et al.* (2000)'s work, firm growth is proxied by firm's market to book ratio. The ratio indicates investors' belief of the company's future prediction. If company has good future prediction, its current market price should be higher than its par value because the investors will demand for those stocks, increasing the market price. Based on this, higher market to book ratio indicates higher growth rate. Industry specialization is measured according to the firm's classification based on SIC (Compustat) format. According to SIC format, sample firms are classified as either manufacturing or service industries. Firms are categorized as manufacturing industries if the firm is from agriculture, forestry and fishing, Mining, construction, manufacturing, wholesale trade, retail trade and public administration or categorized as service industries if the firms is from transportation, communications, electric, gas, finance, insurance

and real estate and services. Summary of variables definitions employed in this study are presented in Appendix C.

Empirical models

Stock return and disclosure level of forward-looking information

To test whether the disclosure level of forward looking information have a significant effect on stock return of the firm, the final empirical regression model that consist of 'stock return' as dependent variable and 'disclosure level of forward looking information' as independent variable takes the following form:

Model 1.1 (Abnormal Return Model: Week 1)

$$ARW1_i = \alpha_0 + \alpha_1 LFL_i + \alpha_2 SIZE_i + \alpha_3 RISK_i + \alpha_4 GROWTH_i + \alpha_5 IND_i + \varepsilon_{it}$$

where

$ARW1_i$ = Cumulative abnormal stock return of firm i for week 1
LFL_i = Disclosure level of forward looking information of firm i
$SIZE_i$ = Size of the firm i
$RISK_i$ = Risk of the firm i
$GROWTH_i$ = Growth of the firm i
IND_i = Industry specialization of the firm i
ε_i = error term at the year

Model 1.2 (Abnormal Return Model: Week 2)

$$ARW2_i = \alpha_0 + \alpha_1 LFL_i + \alpha_2 SIZE_i + \alpha_3 RISK_i + \alpha_4 GROWTH_i + \alpha_5 IND_i + \varepsilon_i$$

where:

$ARW2_i$ = Cumulative abnormal stock return of firm i for week 2

Model 1.3 (Abnormal Return Model: Week 3)

$$ARW3_i = \alpha_0 + \alpha_1 LFL_i + \alpha_2 SIZE_i + \alpha_3 RISK_i + \alpha_4 GROWTH_i + \alpha_5 IND_i + \varepsilon_i$$

where:

$ARW3_i$ = Cumulative abnormal stock return of firm i for week 3

Model 1.4 (Abnormal Return Model: Week 4)

$$ARW4_i = \alpha_0 + \alpha_1 LFL_i + \alpha_2 SIZE_i + \alpha_3 RISK_i + \alpha_4 GROWTH_i + \alpha_5 IND_i + \varepsilon_i$$

where:

$ARW4_i$ = Cumulative abnormal stock return of firm i for week 4

Model 1.5 (Modified Earnings-Return Model)

$$SR_i = \alpha_{0+} \alpha_1 E_i / P_{it-1} + \alpha_2 (E_i - E_{it-1}) / P_{it-1} + \alpha_3 LFL_i + \alpha_4 SIZE_i + \alpha_5 RISK_i + \alpha_6 GROWTH_i + \alpha_7 IND_i + \varepsilon_i$$

Where:

SR_i = 12-month returns (including cash dividends) of firm i ending four months after the fiscal year end
E_i = annual earnings per share
$E_i - E_{it-1}$ = change of annual earnings per share
P_{it-1} = stock price at the beginning of 12-month returns of firm i ending four months after the fiscal year end.

Model 1.6 (Modified Price Model)

$MV_i = \alpha_0 + \alpha_1 BV_i + \alpha_2 E_i + \alpha_3 LFL_i + \alpha_4 SIZE_i + \alpha_5 RISK_i + \alpha_6 GROWTH_i + \alpha_7 IND_i + \varepsilon_i$

Where:

MV_i = market value per share of firm i four months after the fiscal year end

BV_i = book value of equity per share of firm i

E_i = reported fiscal year accounting earnings per share of firm i

Stock return and disclosure quality of forward looking information

To test whether the disclosure quality of forward looking information will have positive and significant effect on the stock return of the firm, the final empirical regression models that consists of 'stock return' as dependent variable and 'disclosure quality of forward looking information' as independent variable takes the following form:

Model 2.1 (Abnormal Return Model: Week 1)

$$ARW1_i = \alpha_0 + \alpha_1 QFL_i + \alpha_2 SIZE_i + \alpha_3 RISK_i + \alpha_4 GROWTH_i + \alpha_5 IND_i + \varepsilon_{it}$$

where:

$ARW1_i$ = Cumulative abnormal stock return of firm i for week 1

QFL_i = Disclosure quality of forward looking information of firm i

$SIZE_i$ = Size of the firm i

$RISK_i$ = Risk of the firm i

$GROWTH_i$ = Growth of the firm i

IND_i = Industry specialization of the firm i

ε_i = error term at the year

Model 2.2 (Abnormal Return Model: Week 2)

$ARW2_i = \alpha_0 + \alpha_1 QFL_i + \alpha_2 SIZE_i + \alpha_3 RISK_i + \alpha_4 GROWTH_i + \alpha_5 IND_i + \varepsilon_i$

where:

$ARW2_i$ = Cumulative abnormal stock return of firm i for week 2

Model 2.3 (Abnormal Return Model: Week 3)

$ARW3_i = \alpha_0 + \alpha_1 QFL_i + \alpha_2 SIZE_i + \alpha_3 RISK_i + \alpha_4 GROWTH_i + \alpha_5 IND_i + \varepsilon_i$

where:

$ARW3_i$ = Cumulative abnormal stock return of firm i for week 3

Model 2.4 (Abnormal Return Model: Week 4)

$ARW4_i = \alpha_0 + \alpha_1 QFL_i + \alpha_2 SIZE_i + \alpha_3 RISK_i + \alpha_4 GROWTH_i + \alpha_5 IND_i + \varepsilon_i$

where:

$ARW4_i$ = Cumulative abnormal stock return of firm i for week 4

Model 2.5 (Modified Earnings-Return Model)

$$SR_i = \alpha_0 + \alpha_1 E_i / P_{it-1} + \alpha_2 (E_i - E_{it-1}) / P_{it-1} + \alpha_3 QFL_i + \alpha_4 SIZE_i + \alpha_5 RISK_i + \alpha_6 GROWTH_i + \alpha_7 IND_i + \varepsilon_i$$

Where:

SR_i = 12-month returns (including cash dividends) of firm i ending four

months after the fiscal year end
E_i = annual earnings per share
$E_i - E_{it-1}$ = change of annual earnings per share
P_{it-1} = stock price at the beginning of 12-month returns of firm j ending four months after the fiscal year end.

Model 2.6 (Modified Price Model)

$$MV_i = \alpha_0 + \alpha_1 BV_i + \alpha_2 E_i + \alpha_3 QFL_i + \alpha_4 SIZE_i + \alpha_5 RISK_i + \alpha_6 GROWTH_i + \alpha_7 IND_i + \varepsilon_i$$

Where:
MV_i = market value per share of firm i four months after the fiscal year end
BV_i = book value of equity per share of firm i
E_i = reported fiscal year accounting earnings per share of firm i

Results and discussions

Analysis of sample

Table 5.1: Sectors' representation of all sample firms

No	Sector	Number of firms	% of sample
1	Construction	17	5.7
2	Consumer	34	11.3
3	Hotels	2	0.7
4	Industrial	58	19.3
5	IPC	5	1.7
6	Plantation	31	10.3
7	Properties	50	16.7
8	Technology	10	3.3
9	Trade/ services	93	31.0
	Total	300	100

As shown in Table 4.1, the majority of firms covered in this sample are from trade and services sector (31%) with 93 firms selected. Only 0.7% is from the hotel sector with two firms selected out of the total 300 firms that have the largest market capitalization in Bursa Malaysia.

After classifying firms that disclose and do not disclose forward-looking information in their annual report, this study then proceeds with 180 firms with the disclosure of forward-looking information to further investigate the disclosure (quantitative and qualitative) effects of forward-looking information on firm's stock return. Table 4.2 shows the sectors representation of the 180 firms with disclosure of forward-looking information.

Table 5.2: Sectors' representation of sample firms with disclosure of forward-looking information

No	Sector	Number of firms	% of sample
1	Construction	11	6.1
2	Consumer	21	11.7
3	Hotels	2	1.1
4	Industrial	32	17.8

5	IPC	5	2.8
6	Plantation	22	12.2
7	Properties	29	16.1
8	Technology	1	0.6
9	Trade/ services	57	31.7
	Total	180	100

As shown in Table 4.2, the majority of firms with the disclosure of forward-looking information that are covered in this sample are from the trade and service sector (31.7%) with 57 firms, while only one firm is from technology sector with 0.6% out of total 180 firms. From the analysis made, only 180 firms disclose forward looking information, which is contradicted with the Bursa Malaysia Listing Requirement (BMLR). This is due to the sources of this study that focus on the disclosure of forward looking information only in Chairman and CEO Statement. According to Corporate Disclosure Guide 2011 by BMLR, Bursa Securities strongly encourages listed firms to prepare and include a separate statement in its annual report containing their management discussion and analysis (MD&A) of its business operations and financial performance during the financial year to give investors and shareholders a better understanding of the firm. For this purpose, Bursa Securities has provided a general guidance on the content of the MD&A in Chapter 6 of the Corporate Disclosure Guide to assist the listed firms in the preparation of its MD&A. One of the information and contents that should be presented in the MD&A is forward looking statement. However, our pre analysis on the presentation of MD&A in the annual report found that only 10% of the listed firm disclosed the section in their annual report. That also contributes to another reason for this study to focus on CEO and Chairman Statement instead of MD&A since these sections are more likely to contain this type of information (Wang and Hussainey, 2013). Thus, that might be an explanation on only 180 listed firms is found to disclose forward looking information in CEO and Chairman Statement as it is not specifically mentioned in Corporate Disclosure Guide 2011 to disclose such information in these statements.

Results of cross-sectional regression analysis

Disclosure level of forward-looking information and firm's stock return

Table 5.3 presents the regression result for disclosure level of forward-looking information and firm's stock return. This study hypothesized that the disclosure level of forward-looking information will give significant impact on firm's stock return. According to table 5.3, results in all models shows that disclosure level of forward-looking information (LFL) is not significantly related with stock return of the firm.

This insignificant relationship between disclosure level of forward looking information and stock return of the firm indicates that disclosure level or quantity of forward looking information is not facilitating the investors in their investment activities, especially in helping reducing asymmetry problem between management and investors that arise from the agency problems in family owned firm which commonly exist in Malaysian market. The result is surprising as the previous study and literature on disclosure of forward looking information with stock return of the firm has a significant influence. Disclosure of forward looking information in general may significantly related with stock return compared to LFL due the approaches used to measure the disclosure effect. Most of previous studies on disclosure of forward looking information use is just using dichotomous approach as the measurement of the disclosure, but Cooke (1989) claimed that this approach is said to be more objective as it treats the items

examined with equivalent importance. On the other hand, LFL is using disclosure score ratio generated from computer-based analysis procedure that only covered CEO and Chairman Statement of the annual report. Thus, disclosure level of forward looking information from only these two statements may not significantly affect the stock return of the firm.

Table 5.3: Disclosure Level of Forward Looking Information and Firm's Stock Return

Variable	Model 1.1	Model 1.2	Model 1.3	Model 1.4	Model 1.5	Model 1.6
	CAR				SR	MV
	W1	W2	W3	W4		
CONSTANT	-2.197	-1.742	-1.972	-1.412	2.051***	-3.914***
	(1.578)	*(2.288)*	*(3.501)*	*(4.211)*	*(0.707)*	*(1.145)*
SIZE	0.052	0.103	0.168	0.169	-0.223***	0.232**
	(0.092)	*(0.138)*	*(0.217)*	*(0.257)*	*(0.080)*	*(0.090)*
RISK	0.508*	0.703	0.982	1.617**	0.256	-0.149
	(0.305)	*(0.450)*	*(0.637)*	*(0.778)*	*(0.190)*	*(0.311)*
GROWTH	0.246*	0.251*	0.346*	0.284	0.221	0.884***
	(0.134)	*(0.132)*	*(0.199)*	*(0.232)*	*(0.171)*	*(0.173)*
IND	1.057***	0.413	-0.230	-0.252	0.517	-0.283
	(0.387)	*(0.639)*	*(0.893)*	*(1.210)*	*(0.410)*	*(0.221)*
LFL	-11.090	-13.825	18.388	-35.365	54.017	-34.361
	(51.289)	*(78.509)*	*(112.040)*	*(119.400)*	*(45.828)*	*(41.786)*
EPS					-0.264	2.319
					(0.287)	*(1.404)*
EPSCH					1.273*	
					(0.690)	
BV						1.102***
						(0.118)
R^2	0.084	0.035	0.032	0.038	0.137	0.757
Adj R^2	0.056	0.005	0.002	0.008	0.099	0.746
F-statistic	2.977**	1.173	1.079	1.264	3.616***	71.128***
Durbin-Watson stat	1.832	1.857	1.887	1.616	1.242	2.244
No. of Obs.	168	168	168	168	168	168

Note: ***, **, * indicates significance at the 1%, 5% and 10% levels respectively

Figure in parentheses ( ) are standard error

These contradict result between disclosure and LFL might also suggest that disclosure of forward looking information do give a significant impact in boosting up the stock return of the firm. However, too much disclosure of forward looking information up to certain level might not give further impact as too much information about future prospect of the firm may no longer relevant or useful in helping the investors to predict their future outcome, plan and activities. This statement is supported by the arguments made by Fan and Wong (2002), where they argue that additional disclosure of accounting information and adoption of new accounting rules may only contribute to the increment of quantity, but not to the quality of the information disclosed. According to Fan and Wong (2002), investors will not significantly react towards the information reported since agency problems exist in most of family-owned firms or known as pyramid structure firm that commonly exist in East Asian countries including Malaysia. Thus, the issue of low transparency of information reported as the results in higher levels of asymmetric information has set the investors' negative perception towards firms that disclose high volume of information including forward looking information.

The results in Table 5.3 also reported a positive and significant relationship between EPSCH and BV with stock return of the firm at 10% and 1% level respectively. EPS and BV is significantly related to stock return under earnings-return model and price model even after controlling these variables in earnings-return and price model due to the explanatory power by these variables to explain the stock return. This indicates that book values of equity and earnings reported by the firm is value relevant and the higher level or quantity disclosure of forward looking information cannot significantly give extra explanatory power towards stock return of the firm. This findings is consistent with Mun et al. (2011), where they examined the relationship between the levels of annual report voluntary disclosure and the market reaction to the next interim earnings announcement in a low regulated and analyst following market. Using direct measures for level of voluntary disclosure and market effects of such disclosure, they examine the first order effects of voluntary disclosure and the results show that preannouncement voluntary disclosure significantly reduces the price and volume reactions in the earnings announcement period.

Results on other control variables also showed a positive relationship with stock return of the firm. Risk (RISK) and growth (GROWTH) of the firm is positive and significantly related with stock return of the firm at 10% and 1% level, whereas for industry specialization (IND), it is also positive and significantly related with stock return of the firm at 1% level. Based on findings of this analysis, H1 is not supported under any of the valuation models where disclosure level of forward-looking information has no positive and significant relationship with stock return of the firm.

Disclosure quality of forward-looking information and firm's stock return

Table 5.4 presents the regression result for disclosure quality of forward-looking information and firm's stock return. This study hypothesizes that the disclosure level of forward-looking information will give a positive and significant impact on firm's stock return. According to table 5.4, results show that disclosure quality of forward-looking information (QFL) is positive and significantly related with stock return of the firm (SR) at 5% level. Findings of this analysis suggest that the disclosure quality of forward looking information can be another good and

important source of information to rely on in their investment activities as it complements and significantly contributes in increasing the stock return of the firm. In addition, both earnings information reported (EPS and EPSCH) which are expected to significantly affect stock return of the firm seems cannot outweigh the importance of disclosure quality of forward looking information in increasing firm's stock even though its explanatory power towards stock return of the firm are proven based on earnings-return model that originally developed by Easton and Harris (1991).

However, the disclosure quality of forward looking information has an insignificant relationship with stock return of the firm due to the presence of book value information (BV) and earning reported (EPS) that have been controlled under price model (Model 2.6) as the explanatory power of these two variables is more significant and value relevant in affecting stock return of the firm at 1% and 10% respectively. Thus, it is better to improve on the quality aspect of the forward looking information instead of focusing on the disclosure level of forward looking information as the quality can help increase positive reaction or respond of the investors towards the firm's stock return. This finding also suggests that in the case of forward looking information and stock return of the firm, quantity is not a good proxy for quality since the magnitude of impact between this two effects of disclosure is different. This finding is consistent with Beretta and Bozzolan (2008), where their empirical evidence supports the hypothesis that the dimensions considered in the disclosure quality framework give more realistic picture of disclosure than quantity does and suggest that the dimension proposed can be complimentarily used in assessing the disclosure.

Table 5.4: Disclosure Quality of Forward Looking Information and Firm's Stock Return

Variable	Model 2.1	Model 2.2	Model 2.3	Model 2.4	Model 2.5	Model 2.6
	CAR				SR	MV
	W1	W2	W3	W4		
CONSTANT	-2.484*	-2.207	-1.873	-2.322	2.353***	-4.428***
	(1.483)	*(2.356)*	*(3.652)*	*(4.148)*	*(0.740)*	*(1.051)*
SIZE	0.053	0.105	0.165	0.174	-0.245***	0.234**
	(0.091)	*(0.139)*	*(0.218)*	*(0.256)*	*(0.090)*	*(0.092)*
RISK	0.517*	0.715	0.971	1.646**	0.251	-0.118
	(0.302)	*(0.449)*	*(0.650)*	*(0.772)*	*(0.182)*	*(0.300)*
GROWTH	0.251*	0.261**	0.351*	0.299	0.238	0.888***
	(0.136)	*(0.132)*	*(0.198)*	*(0.227)*	*(0.175)*	*(0.171)*
IND	1.062**	0.424	-0.223	-0.234	0.571	-0.278
	(0.389)	*(0.640)*	*(0.902)*	*(1.201)*	*(0.409)*	*(0.217)*
QFL	0.333	0.667	0.340	1.050	1.124**	0.201
	(0.841)	*(1.179)*	*(1.744)*	*(2.037)*	*(0.529)*	*(0.738)*

EPS					-0.067	2.350*
					(0.327)	*(1.373)*
EPSCH					0.639	
					(0.715)	
BV						1.105***
						(0.117)
R^2	0.085	0.037	0.032	0.039	0.147	0.756
Adj R^2	0.057	0.007	0.002	0.009	0.109	0.745
F-statistic	3.00**	1.237	1.082	1.310	3.930***	70.821***
Durbin-Watson stat	1.838	1.859	1.891	1.613	1.406	2.222
No. of Obs.	168	168	168	168	168	168

Note: ***, **, * indicates significance at the 1%, 5% and 10% levels respectively.
Figure in parentheses ( ) are standard error

Results on other control variables also showed a positive relationship with stock return of the firm. Risk (RISK) and growth (GROWTH) of the firm is positive and significantly related with stock return of the firm at 10% and 1% level, whereas for industry specialization (IND), it is also positive and significantly related with stock return of the firm at 1% level. Adjusted R^2 for earnings-return model (Model 2.5) reported that 14.7% of dependent variable (SR) is explained by the independent variables. However, the F-statistic of 3.930 is significant at 1% and thus, the model developed is considered as fit in the overall perspective. Based on findings of this analysis, H2 is supported under earnings-return model where disclosure quality of forward looking information has a positive and significant relationship with stock return of the firm.

Conclusion

After the Asian financial crisis, the KLSE Listing Requirements or now know as Bursa Malaysia Listing Requirement (BMLR) were revised and helped set a more sound financial reporting system. Chapter 9 of the KLSE Listing Requirements stipulates the continuous disclosure requirements and refers to the timely and accurate disclosure by the listed companies to improve financial reporting quality. This disclosure requirement helps ensure that there is less information asymmetry and that material information is disclosed on a timely basis to investors. From time to time, some additional of the information has been encouraged and required by BMLR to be disclosed by public listed firms, including forward looking statement to improve the transparency level of corporate disclosure. The requirement of such additional disclosure has been documented in Corporate Disclosure Guide issued by Bursa Malaysia on 22 September 2011 for firms with effective financial year ending on or after 31 December 2011. However, Corporate Disclosure Guide issued by Bursa Malaysia as part of BMLR is less likely to attract the attention of firms to disclose such information in their corporate report since the disclosure of such information need to be presented in MD&A section. Unfortunately, the presentation of MD&A itself in the annual report is still at the low rate. Based on the reason, this study tries to capture the disclosure level and disclosure quality effect of forward looking information among the selected listed firms in the other sections of the annual report and how does it will affect stock return of the firms.

Based on the regression analysis result for disclosure level of forward looking (LFL) information reported the insignificant relationship for all of the proposed modified valuation models, but QFL shows that the relationship is positively and significantly related under modified earnings-return model. LFL is using disclosure score ratio generated from computer-based analysis procedure that only covered CEO and Chairman Statement of the annual report. Thus, that might contribute the disclosure level of forward looking information from only these two statements to not significantly affect the stock return of the firm. In addition, the contradict result between the previous studies on disclosure of forward looking information in general and LFL might suggest that disclosure of forward looking information do give a significant impact in boosting up the stock return of the firm. However, too much discosure of forward looking information up to certain level might not give further impact as too much information about future prospect of the firm may no longer relevant or useful in helping the investors to predict their future outcome, plan and activities. This result also concludes that disclosure quality of forward-looking information can help to improve firm's stock return compared to the disclosure level of forward-looking information. Thus, it is better to improve on the quality aspect of the forward-looking information instead of focusing on the disclosure level of forward-looking information as the quality can positively help to attract investor's belief and reaction towards the firm's stock return. In addition, this finding suggests that the dimensions considered in the disclosure quality framework give more realistic picture of disclosure than quantity does and suggest that the dimension proposed can be complimentarily used in assessing the disclosure.

From the findings, accounting standard setters and regulatory bodies could improve and make some renewal on corporate disclosure guide by outlining specific criteria of information that can be considered as quality information, especially on preparing forward-looking information as a guideline to the preparers. In the current situation, Malaysian firms disclose forward-looking information with a general guideline that only made them disclose additional voluntary information, not additional quality information that really can capture investors' attention when they are reading through the financial statement. Accounting bodies should specifically set up and prepare a new framework on presentation of forward-looking information, so that investors can rely on that framework while they decide to voluntarily disclose forward-looking information in the annual report with a good quality of disclosure. Perhaps, by providing high quality of forward-looking information, it will help the management to outweigh the cost incurred of disclosing such information by receiving positive reaction on their stock return. This new framework also may help to promote disclosure quality of forward-looking information among Malaysian firms, instead of just focusing on the amount of information that need to be disclosed.

Results of this study can act as empirical evidence and used by policy makers, regulators, and standard setters in Malaysia to promote corporate transparency and improve disclosure quality of information disclosed in corporate annual reports to increase market confidence and expectation towards the reported information. Suggestion can also be give to the management to rather focus on disclosure quality of forward-looking information, rather than level of information disclosed to ensure that the cost incurred to voluntarily disclose forward-looking information will be offset by the benefit that they get from the investors reaction towards their stock return. Findings of this study might make them aware and promote the importance of providing high quality forward-looking information as compared high quantity of forward-looking information because investors are craving for value of the information, not volume. In addition, the significant presence of family owned firms in Malaysian market makes them extra

careful and more concerned about the value of the information. No matter if the information is good or bad news, investors will absorb that information especially if it is future oriented and can help them predict their future return.

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APPENDIX A
EXAMPLES OF CODING RULES

Sentence 1 (DIGI, 2013):
"In Malaysia alone there are over 18 million internet users today, and this number is projected to grow to 25 million by end 2015, aided by the continued promotion of information and communications technology (ICT) by the government, in all areas of public lif

Index		Score	Explanation
QLI DIMENSIONS	**COV**	1 in topic "operations"	Discussion about strategic information
	ESM	1	Disclosure of financial measures (quantitative) and about the economic impact (positive)
	OTL	1	Information related to management's hipothesis and expectations

Sentence 2 (GLOMAC, 2013):

"Glomac will also build on the success of Bandar Saujana Utama with the future launch of Saujana Utama 4 – a 200-acre development landbank adjacent to Saujana Utama. This is expected to generate potential GDV of RM800 million."

Index		Score	Explanation
QLI DIMENSIONS	**COV**	1 in topic "operations"	Discussion about future operations (future launch of Saujana Utama 4 project)
	ESM	1	Disclosure of financial measures (quantitative) and about the economic impact (positive)
	OTL	1	Information about planned actions

COV: Coverage; ESM: Economic sign and measure; OTL: Outlook profile

APPENDIX B

MEASUREMENT ON DISCLOSURE QUALITY OF FORWARD-LOOKING INFORMATION

Dimension	Sub-dimension	Index	Name	Formula
Richness		$\boldsymbol{RCN_i}$		$\frac{1}{2}(WID_i + DEP_i)$
	Width	$\boldsymbol{WID_i}$		$\frac{1}{2}(COV_i + DIS_i)$
		COV_i	Coverage	$\frac{1}{st}\sum_{j=1}^{st} INF_{ij}$
		DIS_i	Dispersion	$\frac{\sum_{j=1}^{st} P_{ij} \ln p_{ij}}{\ln st}$
	Depth	$\boldsymbol{DEP_i}$		$\frac{1}{2}(ESM_i + OTL_i)$
		ESM_i	Economic sign and measure	$\frac{1}{2}\frac{1}{id_i}\sum_{j=1}^{id_i} MSR_{ij} + \frac{1}{id_i}\sum_{j=1}^{id_i} ES_{ij}$
		OTL_i	Outlook profile	$\frac{1}{2}\frac{1}{id_i}\sum_{j=1}^{id_i} ACP_{ij} + \frac{1}{id_i}\sum_{j=1}^{id_i} FL_{ij}$

APPENDIX C

DEFINITIONS OF VARIABLES

ARW1, ARW2, ARW3, ARW4 (Cumulative abnormal return for week 1, 2, 3, and 4)	Aggregated the average abnormal returns over the event window for 7, 14, 21 and 28 working days after the publication date of annual report respectively. Abnormal return is calculated for each of the firm for all the days and then determined by subtracting the expected return from actual return [Ri-E(Ri)].
MV (Market value of equity)	Market value per share of the firm four months after the fiscal year end
SR(Stock Return)	Stock price at the end of the year - Stock price at the beginning of the year + dividend of the year / by stock price at the beginning of the year ($P_{it} - P_{it-1} + D_{it}$) / P_{it-1}
EPS (Earnings per share)	Annual earnings per share of the firm
EPSCH (Changes of earnings)	Earnings per share of the year – earnings per share previous year divided by stock price at the beginning of the year ($E_i - E_{it-1}$) / P_{it-1}
BV (Book value of equity)	Book value of equity per share
SIZE (Firm size)	Natural Logarithm of firm's total assets
RISK (Risk)	Market beta of Daily Stock Price
IND (Industry specialization)	Value of '1' for firm categorized as manufacturing and value of '2' for firm categorized as service industries
GROWTH (Growth)	Tobin's' *Q* ratio: Market Value of Equity / Book Value of Equity

THE COMPLEXITY OF INCESTUOUS CASES: CHILD AS VICTIM VS. CHILD AS INCEST OFFENDER

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Abstract: *The issue of incest among children is recognized as one of the worldwide major problems, as it happens within the family unit who possesses same genetic relation and blood ties. This concept paper scrutinized the complexity of the incestuous cases involving children as: (1) victims; and (2) incest offenders. Based on the critical analysis of relevant documents, reports, statistics, newspaper articles and empirical findings; this paper argued that there are six important aspects that lead to the complexity of the issue. Among the important aspects include: (1) characteristics of children as the victims of incest cases; (2) characteristic of children as incest offenders; (3) the issues and challenges in the implementation of incest laws and criminal charges; (4) the sensitivity surroundings incest which highly associated with taboo, stigma, different types of sexual relationships; (consensual or non-consensual sex) and others; (5) incestuous activity behind the closed doors – underreporting cases due to the secrecy and denial to disclose the issue; and (6) the fundamental right of the children to be heard, protected as well as been punished according to the existing laws. While incest issue often being discussed involving children as victims and adults as perpetrators; little efforts have been emphasised on cases involving children as incest offenders. These two scenarios require different understanding, different law coverage, and different rights and protection. A clear understanding through appropriate academic discourse presented in this paper is highly needed, since the number of reported incest cases is increasing drastically in Malaysia, as well as its seriousness, particularly involving children as incest offenders.*

Keywords*: Incest, children as victims, children as incest offenders, rights and protection, laws*

Introduction

The number of reported child sexual abuse (CSA) cases in Malaysia keep increasing yearly; and this has caused an alarm to the society and other relevant parties to take immediate action.

An article reported in *The New Straits Times* (2018) stated that Ministry of Women, Family and Community Development has reported that there were more than 20,000 CSA cases since 2010. A total of 22,234 CSA cases were reported from 2010 to May 2017; and rape cases were reported the highest with the total of 13,272 cases. Although the reported article claimed that most of CSA cases went unreported, a study done by Institute of Crime & Criminology HELP University (2016) cites the incidence of father-daughter incest at 23.1 per cent, step father-daughter incest at 23 per cent; brother-sister incest, 12 per cent; cousin incest, 7.25 per cent; brother-in-law incest, 5.3 per cent; daughter-grandfather incest, 1.6 per cent; and daughter-step grandfather incest, 1 per cent. Notably, incest was highlighted as the most under-reporting CSA cases since it will cause shame to the family members especially if the offender are fathers or brothers (Yusof et al., 2015).

The term incest brings variety of acceptance, definitions, concepts and understanding as it is so much influenced by the diversity of cultures and religions as they have their very own accepted belief in which derived from laws, cultural acceptance, societal norms as well as divine revelation (Kassim & Kassim, 1995). The basic concept of understanding incestuous issue across the world are common in terms of defining incest as any sexual intercourse that occurs among family members. In a wider context of definition, incest is a practice of sexual relationship between individual possessing biological ties, either in a short or long-term kind of relationship, with or without resulting in pregnancy (Lumsden & Wilson, 1980; Tidefors et al, 2010; Read, 2014; Júnior, 2017). While the earlier guru of child sexual abuse, Finkelhor (1976) defines incest as any form or elements of sexually related activities occurs among family members including sexual intercourse, oral or anal genital contact, mutual masturbation, sexual proposition, sexual exhibition and sexual fondling.

Despite many academic discourses on incest around the world, the definition and discussion on incestuous issues is argued to be in a degree of continuum depending on different context, culture, environment and society acceptance. According to Zaini (2018), the definition, interpretation and extent of the word family members depends on how the societies or cultural belief in describing who are the family member itself. Karbeyaz, Toygar and Çelikel (2016) believes that the word family members did not only represent the nuclear family relationship which consist only children and parents but includes larger extension of other relatives as well adoptive child. Meanwhile, Pullman et al., (2017) believe that any sexual relationship involving step-child or adopted child cannot be considered as the act of incest. This is still open for debates across cultures.

Though being recognized as one of the worldwide major problems, incest remains as neglected social problems; this is due to the belief that incestuous issue creates social stigma and taboo among the societies especially in the developing countries (Yusof et al., 2015). In other word, most of the societies refuse to talk about any sexually related matters as they conceive it as sensitive issues which improper to be discussed. Furthermore, the issues of ignorance, awareness, discrimination and denial have continuously impacted the occurrences of incestuous activities. For this reason, incest has been considered as one of the highest rate of under-reported crimes in many countries including Malaysia. It is believed that the pressure of being blamed, feeling of responsibility, embarrassment, secrecy, shame, possible negative consequences, sensitive and lengthy process in disclosing the events has make it more

difficult (Collin-Vezina et al., 2013). In some of the incestuous cases, the incestuous intercourse can only be detected when the victims get into pregnancy.

While incest issue often being discussed involving children as victims and adults as perpetrators; little efforts have been emphasised on cases involving children as incest offenders. Although the public are rarely heard and acknowledge about the cases of incest involving children as the offender, yet it still happened in many societies which requires immediate action to be taken to deal with this issue effectively. These two scenarios of incestuous issue: child as victim vs. child as offender, requires different understanding, different legal interpretation and different rights and protection. A clear understanding through appropriate academic discourse presented in this paper is highly needed, since the number of reported incest cases is increasing drastically in Malaysia, as well as its seriousness, particularly involving children as incest offenders.

Incest in Malaysia

It is believed that incest is one of the most under-reported crimes as it is associated with the feeling of shame resulting from taboos and social stigma. Even though incest is considered as under-reported types of crimes, the Ministry of Women, Family and Community Development recorded 1796 incestuous cases between 2010 to 2017 (Kadir, 2018).

Incest is a crime in Malaysia and most of other countries across the world. It refers to a sexual intercourse between close relatives whose are not permitted to marry under the law, religion, customs or usage applicable (Section 376_A, of the Penal Code (Revised 1997) Act 574.

> *A person is said to commit incest if he or she has sexual intercourse with another person whose relationship to him or her is such that he or she is not permitted, under the law, religion, custom or usage applicable to him or her, to marry that other person (Section 376A of the Penal Code)*

Upon conviction, Section $376_{B\backslash}$ of the Penal Code provides that a person who commit incestuous cases shall be imprisoned for not less than 10 years and not more than 30 years, as well as can be liable to whipping.

> *(1) Whoever commits incest shall be punished with imprisonment for a term of *not less than ten years and not more than thirty years, and shall also be liable to whipping.*
> *(2) It shall be a defence to a charge against a person under this section if it is proved—*
> *(a) that he or she did not know that the person with whom he or she had sexual intercourse was a person whose relationship to him or her was such that he or she was not permitted under the law, religion, custom or usage applicable to him or her to marry that person; or*
> *(b) that the act of sexual intercourse was done without his or her consent*

This Penal Code act is applicable for the female victim under the age of sixteen (16) years old and thirteen (13) years old for male victims, and deemed incapable in giving consent. In

comparison with rape, the punishment of incestuous crime is more severe due to the repulsive nature as the perpetrators has a close relatedness with the victims and the perpetrators are the one who should be responsible and obligated to protect the victims, uphold their rights as the children, not to abuse them. As based on the act, there is no description of individuals which prohibited to marry each other under the law, religion, custom or usage, references should be made at the Islamic Family Law (Federal Territories) Act 1984 for the Muslim while Law Reform (Marriage and Divorce) Act 1976 for the non-Muslim.

The degree of consent should not become an element of measurement in determining whether the incestuous relation is an offence or not. The act of incest should be said as an offence regardless it is done by consent or without consent. Referring to the Section 376_A of Penal Code Act, there is no element of consent was mentioned in defining incestuous relations. Thus, consent is not an issue, unless it is rape cases involving individual which did not possessed any biological relation with the victims as referred to Section 377 of Penal Code.

However, should the individual who commit consensual incest will be punished same like the one who are forced to do it, without any consent? While discussing on the incestuous cases occurs among the children, there might be two possibilities which make them involves in the incestuous intercourse whether the children have been forced, threatened or abused to do such things or they were manipulated, or given a misconception and understanding of sexual intercourse. Ahmad and Sulaiman (2017) in their article have quoted a statement by Assistant Superintendent Halimah Kawaludin: in some cases, there are victims who agree to have sexual intercourse with their parents due to the absence of their parents' partners resulting from death or divorce. An important question raised is whether the victims have been incestuously victimized since the consent has been given at the first place?

Behind the closed doors

Sexually related matters and issues are not being openly discussed in our country as we have a belief and stigma that it is improper to be discussed. Some of our people in the societies tend to have a misconception and misunderstanding on regards with sexually related issues as they might not be exposed to the accurate information. They tend to believe the myth rather than the facts. Literatures discovered that social stigma, embarrassment and culture of silence have led to the reluctances of the societies and creates barriers for them to make a report regarding on the incestuous cases (Shah, 2005; Nen, 2012).

The cultural taboos and social stigma have found to be contributes to the negative formulation of societal attitudes especially towards the victims of incest (Yusof et al, 2015). It creates fear to the victims. Stigma is a mark of severe social disapproval that the results from the individual's deviation from social norm (Jones et al., 1984; Crocker et al., 1998). When incest cases occur, the societies will perceive it as something which cannot be accepted as it is contradicted with the societal accepted belief. People have a great tendency to put the blame towards the victims as well as the members of the family (Yusof et al., 2015). These perception and belief has negatively influenced the victims for not seeking help or reporting the incident as they afraid of the aftermath consequence that they would need to face. It was found that many of the victims remain silent due to the burden of social stigma which harboured by the societies to the victims. They choose to keep it as a secret and refuse to seek

for justice by reporting the incident to the authorities. When there is no report been made to the authority, the perpetrators are free to do whatever they like as long as they are not been taken any action. Hence, the victims will be leaves in a silence suffers and continuous abuse which then may create physical, mental or psychological harm. While Status Report on Children's Right In Malaysia (2012) reported that the low rate of child sexual abuse has been contributed to the serious harm and even death towards the victims. A part from that, day by day, the victims may show some behavioural changes in a way of negative manners as a results from the suffers that they experienced.

Although some cultures do believe that incest is socially accepted especially when the intercourse is done between the consenting parties, yet still it is morally wrong to have such kind of sexual relationship with the person who possess the same genes (Herzog, 2012). A part from that, it is disgustful to have sex with our first-degree relatives as it is contrary with the nature of moral guidance. While having an incestuous sex with a child are not only morally wrong, it is also a kind of inhuman act (Roffee, 2014).

Despites the raising and alarming numbers of reported cases of incest, there are still mesmerizing amount of unreported incest cases (Idham et al, 2015). Study found that approximately from 3 incestuous cases happens, only 1 case reported to the authority (Yusof et al., 2015). It is found that the burden of social stigma and taboos are one of major reason on why many of the victims remain silent. Social stigma creates fear towards the victims. They choose to keep it as a secret and refuse to seek for justice on what happen to them realizing that there are several possible consequences that the victims as well as the other family members may face.

At worse, people nowadays tend to believe that the victims should bear the responsibility for the abuse as they are exposing themselves too much, become physically and sexually attractive or unable to take care of their own dignity (Nen, 2010). They tend to put the blame towards the victims for what has happened to them, rather than protecting them and take action towards the perpetrators (Abdullah et al., 2002). The current trend of Asian culture has made mother as the second victims by putting the blame towards them and making them feel guilty for allowing incestuous events occurs within the family unit (Yusof et al, 2015). Mother should be responsible and held accountability in any action or behaviour of a father. When incestuous cases happen, they would blame the mother as the results from inability and unavailability in fulfilling her responsibilities and protecting the dignity of the family.

Children as Victim

Most recently, Malaysia was sparked with incestuous cases involving a father and his own daughter who charged for sodomize his daughter for 600 times (*New Straits Times*, 10 August 2017). The reading of charges including various of crimes such as sodomized, raped and sexually abused which is an offences stipulated under Penal Code, Sexual Offences Against Children Act 2017 and Child Act 2001. The charge was read at the Special Courts for Sexual Crime against Children in Putrajaya. The father was reported to commit the crimes against his teenage daughter over 600 times in a period of 2 years after divorcing his wife in 2015.

Another incestuous case reported was a 50-year-old lorry driver from Johor, who had sexually assaulted his daughter since the daughter was one year to four years. He was sentenced to 81 years' jail and 8 strokes of the whip (*New Straits Times*, 28 January 2018). The victim's uncle was charge for molesting the girl and was jailed for 5 years. Furthermore, on 15th August 2017, a mechanic from Kuala Lumpur was sentenced to 26 years jail and 6 strokes for committing incest with his 14 years old step daughter.

The tendency for children to be exposed with incestuous offences are at the high risk. They are yet still vulnerable, weak, depending on the adults, parents or caretakers to survive. Thus, this is an open opportunity for the perpetrator to sexually abuse the children under their care without no one knowing their incestuous activities (Yusof et al, 2015). A vulnerable child could be silenced as results from threats or not knowing and having any ideas on what are sexual intercourse is. More than that, in some cases, the perpetrators believed that they are superiors towards others, thus their actions and behaviours are expected to be accepted by others without retaliation (Ward and Keenan, 1999; Jamisetty et al., 2016).

Current evidence regarding the pattern of incestuous victims reveal that children at the age between 13 to 15 years old represents the highest number or victims as reported by Royal Malaysian Police, (2018). This pattern is so much influenced by the biological and physical changes as the female victims at these stages hit their puberty. Thus, their body will start to shape like an adult, and several changes may appear such as the changes of breast size and development of pubic and underarm hair. At this stages also, they will experience sexual curiosity as they are at the phase of sexual awakening (Thanenthiran, 2018).

Children as offenders

While the issue of incest often being discussed whereas the children are the victims and the perpetrators are adults, the data begin to show that a sizeable number of these sexual offences are committed by juvenile offenders which are the underage. Ward and Keenan (1999) believed that children also have their sexual desire, as they are also believed to share same sexual drives as adults and therefore capable of wanting and relishing sex. This is due to the nature of human beings that possessed the need of pleasure and sexual desires.

Based on the report by Department of Statistic Malaysia (2017), the number of people related crimes by juveniles increasing gradually within 3 years from 2015 to 2017. The number of people related crimes in 2015 is 633 followed by 653 in 2016 and increase sharply to 741 in 2017. The report also categorized the number of juvenile offenders by sex. The number of crimes committed by male in 2015 is 4,282 followed by 4,607 in 2016 and increase sharply to 5,146 in 2017. On the other hand, the number for female offender is 287 in 2015 and decrease a little to 279 in 2016 and increased gradually to 297 in 2017.The total number for both sex in 2015 is 4,669 and increased gradually to 4,886 in 2016 and climbed up to 5,443 in 2017. The statistic recorded the number of juvenile offenders based on the Child Act 2001 in which the age of children is below 18 years.

Based on the statistic, it can be inferred that the male commit crime related to people is higher than the female and the numbers of crime related people also increase gradually within the 3 years. There are many factors contributing to juvenile delinquency. A study conducted by

Dora and Halim (2011) concluded that economy is being the leading factors followed by unemployment, communication, urbanization and value change. The study has shown that the juvenile cases, abuse and divorce happen due to the emotional pressure besides impatience factor between parents.

The incest cases involving children as offender were still an alarming topic in 2019 when there was a case where a boy who age 14 years' old who plead guilty committing incest with his 16 years old sister in Kampar, Perak (*The Star*, 14 January 2019). He was charged under section 376 (B) (1) of Penal Code, in which upon convicted will carries a maximum of 30 year's jail and whipping. All the news reported show that there is one common pattern which this crime happens in families.

Issues and challenges in the implementation of incest laws and criminal charges

The Convention on Rights of Children (CRC) specified about the protection of the children. The convention which consisted of 54 articles covers for every child in the area of health, education, equality, protection as well as advance humanity. All the State Parties including Malaysia which ratified this Convention is bound to follow the convention. Article 4 of the convention has specified about the responsibility of government to ensure the children's right are respected, protected and fulfilled. It is the duty of the government to review the existing laws on children to ensure the necessary action being taken for the protection of children. In addition, Article 28 also mention about the children's right to education. The rights of children are also specified under Federal Constitution of Malaysia under Part II which deals with Fundamental Liberties. With regard to this matter, the government has a duty to give the children right to education and there should be no discipline practices that involve the physical or mental abuse.

Furthermore, if the government wants to make any law, policy or regulation relating to children, the principle of the best interest of the children must be taken into consideration which in line with Article 3 of the Convention. Despite the country is well developed and there is a positive economic gain to the country, there are still some issues and challenges in the implementation of incest law and various criminal charges.

Principle of Sentencing

With regard to the principle of sentencing to the children, it is to be highlighted here that sentencing for children is different from adults. Although the CRC recognize the principle of accountability for children who commit a crime, there is a need to take into consideration of other factors such as the age of child, the principle of recovery and reintegration to the society. It can be understood that in imposing an order for children, the ultimate aim of the court is in ensuring that the aim of order is to assist the child to rectify the behavior and later become a productive and a good citizen. In discussing this issue, there are two main justifications for this matter. Firstly, is due to immaturity of the children and secondly is because children are still young and more easily influenced to change their behavior. Therefore, the court need to take various factors and consideration before passing the order

for the children. The advice from the advisor which has been stipulated under section 90 (c) (17) Child Act 2001 shows the different treatment of law between child and adult.

Dusuki (2015) in her study highlighted the issues and challenges in handling the matters of children in Malaysia:

i. Seniority of the Officer in Court

Firstly, in term of seniority of the officer in court. She is in the view that before a magistrate trial a case involving children, there is a need for the magistrate to undergo a special training about children's right and need. The training is very important to ensure that the magistrate realize the children special position and the aim of the law to preserve and protect the children due to their immaturity. The training should include visitation to the children institution such as Henry Gurney School, Sekolah Tunas Bakti and others so that the magistrate understanding the implication of sending the children to that institutions.

ii. Specific Court with Child Environment Friendly

Even the law specifically mentioned that the environment in court should be more child friendly, the implementation on this law still not be implemented fully. Currently, there are only one court in Jalan Duta, Kuala Lumpur. In practice, the Court for Children generally sharing with the magistrate court and the date for trial is specified for certain day. The suggestion to builds specific court for children have being put forward to ensure that the provision under the Child Act can be implemented accordingly.

iii. Defense Counsel to represent children.

Among the issues highlighted is the involvement of children to give their opinion efficiently. Therefore, there is a need for them to get sufficient advice. In lieu with this matter, independence Defense Counsel should be appointed to represent children in court. Currently, children did not get free representation and their views are not taken into consideration even though the decision taken will affect their future. This situation is inconsistent with the principle of the best interest of the children.

iv. Credible advisor in Court.

Advisor which is appointed to assist the magistrate must be appointed from those who have background relating to the children to ensure the role to advice the court can be implemented fully and efficient. This is because the advisor has a role to advice the court and if needed, to advice the parents or the guardian of the children. The requirements for advisor is stipulated under section 11(2) of Child Act 2001.

The fundamental right of the children to be heard, protected as well as been punished according to the existing laws

Malaysia is a State Party to the Convention. In addition, to show the commitment to protect the children in Malaysia, the government also signing and ratify the Conventions such as follows:

- Convention on the Rights of the Child: 19th March 1995
- Convention on the Elimination of All Forms of Discrimination against Women: 4th August 1995
- International Labour Organization Convention 138 (min age for admission to employment): 1997
- International Labour Organisation Convention 182 (worst form of child labour): 10th November 2000
- Convention against Transnational Organised Crime: 26th September 2002
- Convention on the Rights of Persons with Disabilities: 8th April 2008
- Optional Protocols on the Rights of the child on the Sale of Children, Child Prostitution and Child Pornography: 2nd April 2012
- Optional Protocols to the Convention on the Rights of the child on the Involvement of Children in armed Conflicts: 2nd April 2012

Under the Malaysian Laws, the fundamental rights of children have been specified under Federal Constitution of Malaysia, under Part II, ie Fundamental Liberties specifically under Article 5, Article 6 and Article 12. Article 5 is on liberty of person, Article 6 on prohibition of slavery and forced labour while for Article 12 is rights in respect of education. Furthermore, the rights and protection of children is also governing under the Child Act 2001 in which Malaysia has established the Act after signing the Convention on Rights of Children in 1995. There are also other laws relating to protection children in Malaysia. Among the laws are such follows:

- Adoption Act 1952
- Anti-Trafficking in Persons Act 2007
- Births and Death Registration Act 1957
- Care Centres Act 1993
- Domestic Violence Act 1994
- Education Act 1996
- Guardianship of Infants Act 1961
- Law Reform (Marriage and Divorce) Act 1976

With regard to the issue of parents who neglected the children, an action can be taken against the parent. Chapter 3 of the Child Act 2001 deals with the offences in relation to the health and welfare of the children. With regard to this matter, Section 31 of Child Act 2001 stated that any person who abuses, neglects, abandons or exposes the child in any manner likely to cause him being abused, physically or sexually abused commits an offence and shall on conviction be liable to a fine not exceeding twenty thousand ringgit or to imprisonment for a term not exceeding ten years or to both. Section 31 (2) also empower the court to order the convicted person to be execute with a bond with sureties to be of good behavior and may include any conditions as the court consider adequate.

Subsection (3) also mentioned that if the convicted person fails to comply with the conditions of the bond, he shall be liable to a fine not exceeding RM 10,000 or to a further imprisonment not exceeding five years or to both. Subsection (4) also mentioned that a parent, guardian or other person are legally liable when fail to provide a child maintenance, neglected the child and lead the child to suffer physical or emotional injury including fails to afford sufficient food, clothing, medicine including dental treatment, accommodation or maintenance for the child. It is to be highlighted here that a person may be convicted of an offence under this section if the suffering face by children was avoided by the help of other person or even the child in question has died.

In responds to the issue of children rights and protection, the government has taken few measures in supporting this notion. Being a State Party to Convention on the Rights of Children in 1995, the introduction of Child Act 2001, The establishment of The National Child Policy and The National Child Protection Policy, the establishment of Ministry of Women, Family and Community Development (MWFCD) and the implementation of various laws are among the steps that have been taken by the government throughout the years. The MWFCD will not compromise with parents who neglected their children unless they have a reason for the action. In lieu with this matter, the Child Act 2001 will be implemented in full force. No matter what resolution that will be suggested, the most important thing is for the parents to take the responsibility to take care of the children. The same principle should be applied to community in which the community should take care of each other and get to know what happen to the neighbours also community and report any suspicious activities to the authority.**Conclusion**

Incest is a disgust and despicable offence which occurs within our societal systems. It is paramount for the government and other related authoritative agencies to look upon not only the occurrences of the incestuous cases among children but also the act of incest done by the children. Suitable law amendment, policy as well as punishment pertaining on the incestuous cases should be taken delicately as it is involving the rights of the children to be protected. Proper education pertaining to sexual related issues should be provided to the children for their better understanding regardless of its' sensitivity. By letting the trend of incestuous cases done by children, it will allow the tragic event recur in future until the child offender become an adult. Apart from that, an effective intervention programs or proactive action done by the government will not only help in reducing the numbers of incestuous cases but will also help to demolish the tragedy from happening within the country.

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PATTERNS OF CODE SWITCHING IN ACADEMIC DISCOURSE AMONG IRAQI POSTGRADUATE STUDENTS IN MALAYSIA

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Abstract: *This research explores the use of code switching among Iraqi postgraduate students in their academic discourse. This research investigated the patterns and reasons of code switching in academic discourse. This research utilizes qualitative research methods by using a purposive sampling to recruit the Iraqi postgraduate students who are registered in Malaysian universities for different programs. There are 4 males and 4 females selected for the interviews from different field of study. Each pair from the same gender is separately included in a video-recorded interview. The video recorded data is transcribed for the purpose of analysis. The recorded data is transcribed and analyzed sentence by sentence by exploring the use of code switching in the academic discourse. The occurrence of code switching is analyzed and categorized into the respected pattern. The results show that there are three patterns of code switching that the Iraqi postgraduate students used in their academic discourse including intra-sentential code switching, inter-sentential code switching and tag code switching. However, intra-sentential code switching is used more frequently than other patterns. This study will give an insight into the tendencies of Iraqi postgraduate students to switch between languages, as well as to serve as a useful information for other researchers in explore the phenomenon of code switching in academic discourse.*

Keywords*: Arabic, Code-switching, Academic discourse, Patterns*

Introduction

Code switching refers to "change in language within a single speech event (conversation)" (Saville-Troike, 2003). Usually code switching is common in the speech of multilingual people who speak more than one language. Multilingual speakers often use multiple languages while communicating with each other. Code-switching is considered as a syntactical and phonological proper use of more than one linguistic variety (Meryerhoff, 2006). In education, Arab students at universities are often referred to code-switching between Arabic and English as a useful tool for communications, which they usually include in their conversations, discussions, and arguments. This phenomenon can be easily recognized among Arab students when communicating with each other, especially in case of students coming from different Arab states converse, or when two or more students studying at a university or college that uses English as a language of instruction for most of the taught courses (Rammal , 2012). Code switching can also present problems to the social development of the learners because it can reduce their communication with people who

speak different language from their own or people from other cultures (Trudgill, 2000). Code switching is an appropriate special verity for interaction with family and friends and in certain circumstances at university or school, but it cannot be a language of broader communication (Trudgill, 2000). Code-switching in second or foreign language acquisition is a linguistic behavior for emerging bilingual in bilingual learning or multilingual contexts (Jamshidi and Navehebrahim, 2013). Systematic investigation of code switching among learners was carried out by Arnfast and Jorgensen, (2003) which indicated the benefit of code-switching in developing the bilingual ability among learners within the first year of intensive training in the target language. On the other hand, another study reported that the use of the first language is a barrier to learn the second language and it may also prevent the student from gaining the valuable input in the second language (Mahadeo, 2006). At university level, the academic discourse can be investigated as an interchange between colleagues on occasion of formal and informal conversations (Amelia, et al 2006).

There are three types of CS including inter-sentential CS, intra-sentential CS, and tag code switching (Poblack, 1980). According to Myers-Scotton, inter-sentential switching happens at the clausal or sentential level where each clause or sentence is in one of the two languages. This pattern of code switching requires more fluent speaker in both languages in order to match to the rules of the languages. In the other words, inter-sentential switching occurs at a clause or sentence boundary by triggering a clause or sentence from the other language (Myers-Scotton, 1993). It can also occur during switching from language to another in a conversation (Al-hourani, 2016). A study by Zirker (2007) stated that inter-sentential switching consists of languages witches at phrasal, sentence, or discourse boundaries (Zirker, 2007). Other studies refer to four patterns of code switching among students, including inter-sentential CS, intra-sentential CS, situational CS and metaphorical CS (Adbul-Zahra, 2010; Chidambaram, 2006; Zakaria et al., 2010). According to Zakaria et al., (2010) the situational code switching happens when the speakers changed their code from L1 to L2 depending on the situation and the topic at that time. Whereas, metaphorical code switching occurs when the speakers switched to L2 to add more effect to their communication (Zakaria et al., 2010).In Iraq, a study by Mohammed, (2015) was conducted on twenty Iraqi undergraduates who are fourth year students in different faculties at the bachelor level in Baghdad University. This study indicated that the most frequent type of CS used by them is intra-sentential CS. The speaker began the utterance in Arabic, then changed to English language and finally switched back to Arabic; speakers filled the gap in their utterances as a communicative strategy to cover the idea (Mohammed et al., 2015).This study will help to find the use of code switching in academic discourse among Iraqi postgraduate students in Malaysia.

Methodology

Study Design

A qualitative method is used to explore the use of code switching in the academic discourse of Iraqi postgraduate students in Malaysia. The qualitative approach is used to get in depth understanding about the occurrence of code switching in the academic context. The data was obtained based on an academic discourse among Iraqi students from both genders in different education programs.

Study Sample

A purposive sampling method is used to recruit the participants who are studying in Malaysian universities as postgraduate students. The postgraduate students who are enrolled

for instance Master and Ph.D. in Malaysia are included in this study. The participants are bilinguals of English; speak Arabic as their mother tongue and English as a second language for studying purpose in Malaysian universities. To get detailed information on Iraqi academic discourse, students are selected based on their gender from similar field and different field of study. Eight participants are involved in this research including equal numbers, 4 males and 4 females.

Data Collection

The following procedure is carried out for the purpose of the study. Firstly, after getting the participants' permission, the consent form has been obtained from all the participants. The researcher keeps in touch with the participants by making appointments with them during their free time until arranging a natural setting.

Secondly, discussion session is used to obtain the data from Iraqi participants by starting an academic discourse related to their academic study. For convenience, each gender is interviewed separately to maintain the homogeneity of the data. Each pair is invited to session to be more comfortable for the participants to share their academic topics. In total, four discussion sessions are carried out at different time by dividing them into two pair each gender. The discussion session are discussed academic subjects related to their field of study to ensure the academic discourse is maintained? Some questions are suggested to start the interview and to motivate the participants to interact about an academic subject.

Data analysis

The recorded data was transcribed and analyzed sentence by sentence based on the used switches from English to Arabic and vice versa. The occurrence of code-switching in the academic discourse is highlighted and classified into the respective pattern. The data was analyzed according to the occurrence of code switching between Arabic and English. Content analysis was done manually to determine the content of each code used in the academic discourse

Results

The qualitative data is analyzed based on the occurrence of code switching in the academic discourse among the Iraqi postgraduate students in Malaysia. The interviews are taken approximately 2 hours for each pair interview session.

From our sample, the demographic information of the participants and the academic fields, degree pursuing, and the year of study were presented in Table 1 and Table 2 present the demographic data of the participants.

Table 1: The demographic data of the males' participants

	Group 1		**Group 2**	
Gender	**Male 1**	**Male 2**	**Male 3**	**Male 4**
Age	46	35	33	36
Academic field	Sciences (Pharmacy)	Sciences (Pharmacy)	Sciences (Computer Science)	Sciences (Social Science)
Degree pursuing	Ph.D	Ph.D	Ph.D	Ph.D
Year of study	3rd year	1st year	2nd year	3rd year

Table 2: The demographic data of the females' participants

	Group 3		Group 4	
Gender	**Female 1**	**Female 2**	**Female 4**	**Female 3**
Age	40	30	38	34
Academic field	Sciences (Pharmacy)	Sciences (Chemistry)	Sciences (Pharmacy)	Humanities (Management)
Degree pursuing	Ph.D	Ph.D	Master	Ph.D
Year of study	1st year	3rd year	2nd year	2nd year

Patterns of Code Switching

From the data analysis, it is found that the code switching is frequently used between the participants in the academic discourse. The participants try to mix between two languages sometimes from English to Arabic and in other times from Arabic to English to explain their academic topics. Three patterns of code switching are recognized in their academic discourse including the inter-sentential code switching, intra-sentential code switching, and tag code switching. The frequent use of code switching is occurred in the middle of the sentence within clause, phrase, and word boundaries. This indicated that the most common pattern of code switching used by the participants in their academic discourse is the intra-sentential code switching.

Intra-Sentential Code Switching

The intra-sentential code switching is a type of code switching that can be defined in which the code switch occurs from language to another within the same sentence; it also can be occurred with a word or word repetition, clause, phrase or even sentence. In this study, the intra-sentential code switching is happened from English to Arabic and from Arabic to English. It's found that the intra-sentential code switching from English to Arabic is used less compared to switching from Arabic to English. However, the code switching from Arabic to English is widely used among the participants. This happened because the participants may feel more comfortable when they speak in their first language to explain any topic related to their academic discourse.

Intra-Sentential Code Switching from English to Arabic

Example 1

Male1: Beside the American definition and the European definition of polypharmacy, **lazim asawi** [should I make] definition

Semantic translation: "*Beside the American definition and the European definition of polypharmacy, **I should make** a definition*"

Intra-Sentential Code Switching from Arabic to English

Example 2

Male1: Jamea al **data**, akhath mni sana kamilah.[collection the data taken for me year whole]

Semantic translation: "*the data collection had taken a whole year*"

During the academic discourse, the psycholinguistic factors which involve switching for stylistic meaning and communication strategy triggered the code switch to occur.

Accordingly, the participants switched in their academic discourse as a manner of communicating with each other and exchanging their ideas about the academic subjects. For the purpose of analysis, and due to the huge data, the intra-sentential code switching from is classified into three categories including the academic subjects, scientific terms, modern and popular words.

The participants used to switch with academic words in English when they speak in Arabic such as data, analysis, supervisor, research, reference, workshop, proposal, standard, and method.

Example 3

Male2: itha inta tihb tiqra al **proposal** malti hata tshof al **methodology**.[If you like read the proposal mine to see the methodology]

Semantic translation: "*If you like to read my proposal to understand the methodology*"

The participants used to switch with scientific words in English when they speak in Arabic such as polypharmacy, new delivery system, clinical trial, cesarean section, chronic disease.

Example 4

Female3: ani, a topic mailti a'an al **cesarean section**, washlon insawi **pain management**. [me the topic mine about the cesarean section, and how we do pain management]

Semantic translation: "*me, my topic is about the cesarean section and how we do pain management*"

The participants used to switch with modern and popular words in English when they speak in Arabic such as system, level, challenge, Nano, mobile, internet, google translate, friendly

Example 5

Male3: ani indi bi al **system** mailti **online website**. [I have the system my main online website]

Semantic translation: "*I have an online website in my system*"

Inter-Sentential Code Switching

The inter-sentential code switching was used in some places from the academic discourse of the participants. The inter-sentential code switching refers to which the alternating from one language to another language across sentences. The inter-sentential code switching occurs between sentences at the sentences boundaries, that emphasizes a particular point spoken in another language. From the transcription analysis, the inter-sentential code switching is used by the participants in their Academic discourse as a strategy of explaining a subject for more details within the same discourse event

Example 6

Male 4: So it should be similar not that big change, lazim tkoon alnataij qaribah wehdah min althaniya.[should be the results near one from a second]

Semantic translation: "*So it should be similar not that big change, the results should be near to each other*".

Tag Code Switching

Tag code switching is another pattern of code switching which recognized in the academic discourse of Iraqi postgraduate students in Malaysia. Tag switching is occurring between a

clause and usually an extra-clause element attached to it. Tags are isolated words or phrases which are not related syntactically to the rest of the utterance. The following example shows the tag code switching used by the participants.

Example 7

Female3 : kint akhith altablat mal sanawat alsabiqah illi beha alma'alumat illi ani areed'ha. **That is all.**

Semantic translation: "*I was taken the sheets of previous years which it contains the information that I want it. That is all*"

Discussion

In this study, the code switching is widely used among the participants in the academic discourse. All the participants tended to switch from Arabic to English in their academic discourse. It's found that the Arabic language was a dominant language among the participants to explain any topic related to their academic discourse. A study by Zabrodskaja, (2008) on the use of code switching among the university students showed that during lectures or seminars students use Russian as a first language which they feel most comfortable and in which they enjoy greater capability (Zabrodskaja, 2008). Another study by Jamshidi, (2013) found that the code switching is frequently used between the participants in the academic discourse. In this study, the participants try to mix between two languages sometimes from English to Arabic and in other times from Arabic to English to explain their academic topics. According to Chidambaram (2006), the code switching involved two patterns of code switching which are intra-sentential and inter-sentential code switching. Intra-sentential is the pattern of code switching which occurs in the sentences itself. It can be the switch of a word, a clause, a phrase (Chidambaram, 2006). In the current study, the participants used to switch to English language when they want to explain the academic subjects. It's found that the most common pattern of code switching used by the participants in their academic discourse is the intra-sentential code switching. Other studies reported that Iraqi students have the tendency to use the pattern of intra-sentential code switching. The code-switching is used by students to allow the others to understand their speech. Therefore, code-switching used to help the students to achieve their discourse purpose (Mohammed et al., 2015; Sardar et al.,2015).

The inter-sentential code switching occurs between sentences at the sentences boundaries, that emphasizes a particular point spoken in another language. The inter-sentential code switching is used in some places in the academic discourse of the participants. The inter-sentential code switching refers to which the alternating from one language to another language across sentences. A study done by Shartiely (2016) supports the findings of the current study that inter-sentential code switching used to achieve different communicative goals, such as a process of elaboration, a point explanation and confirm understanding (Shartiely, 2016). Uys, (2010) the code switching may occur to explain a point, confirm understanding, and give general instructions (Uys, 2010). This type of code-switching requires fluent speakers in both languages in order to meet to the rules of the languages (Poplack, 1980, SharafEldin, 2014). In this study, the inter-sentential code switching occurred between sentences at the sentences boundaries, that emphasizes a particular point spoken in another language. This pattern might be used by the participants in their academic discourse as a strategy of explaining a subject for giving more clarifications or attention towards a certain point within the same discourse

event. This kind of switching requires greater fluency in both languages, as each part of the utterance must agree with the rules of the corresponding language being spoken. For inter-sentential switching, where switches can be at clause and sentence boundaries.
Tag code switching is another pattern of code switching which recognized in the academic discourse of Iraqi postgraduate students in Malaysia. Tag switching is occurring between a clause and usually an extra-clause element attached to it. Tags are isolated words or phrases which are not related syntactically to the rest of the utterance. The occurrence of a tag does not break any grammatical rule either. It is the insertion of a tag phrase from one language into an utterance from another language (Mohammed, 2015). Tag switching involves attaching a tag from one language to an utterance entirely in the other language (Sharaf Eldin, 2014; Poplack, 1980).Tag code switching involves inserting a tag or short phrase in one language into an utterance that is otherwise entirely in another language. This type of code-switching occurs the most easily for the reason being that tags typically contain minimal syntactic restrictions thus not violating syntactic rules when being inserted into monolingual sentences. Common English tags such as I mean, you know and I wish are some of the examples that fit into that category (Poplack, 1980). These words are tagged between the participants might be due the occurrence of academic discourse to use these tags more comfortable and easy of speaking them in the target language.

Conclusions

This study found that the use of code switching by bilingual Iraqi postgraduates student in academic discourse, the data was collected from the interactions between bilingual Iraqi postgraduates during different academic discourse. Based on the analysis, it is found that the phenomenon of code switching occurs in both genders male and female in academic discourse. Iraqi postgraduates' students switched from Arabic to English and vice-versa for different communicative goals such as to overcome lexical gaps, show their ability and to explain a specific point in scientific topic. The finding of this study showed the benefits of involving students' mother tongue to improve their academic communication by using both languages during the academic discourse. It was detected that there are opportunities for switching at several syntactic and discourse boundaries where the three patterns of CS are included the inter- sentential code switching, intra-sentential code switching, and tag- code switching. It is also found that throughout the switched patterns, the intra-sentential code switching is the most prevalent pattern in the academic discourse.

Recommendations

It has been identified in the previous studies of code switching that this phenomenon is widely used in the multilingual countries, but, the reasons for this phenomenon may differ from country to another. It will be highly recommended if more studies are carried out to find this phenomenon in the academic discourse among monolingual postgraduate students in Iraq. The linguists are needed to be more involved in the academic discourse to cover all the terms in order to overcome the lexical gaps in the academic discourse. This can be helpful for the learning process in any academic level. It found that the use of code switching in academic discourse as a reason of giving more explanation and clarification about the academic and scientific subject, it will be interesting if more research can be conducted on the occurrence of code switching between lecturer and students at the university level in Iraq that the setting may reflect more code switching to occur.

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THE IMPACT OF SAUDIS' ATTITUDES TOWARDS GRAFFITI

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Abstract: *Inscription is a common and a widely used literary technique in communication. This technique is used to deliver an underlying message indirectly. The intended meaning of the words used in inscription form is different from its actual meaning. This literary device is used actively in the Western World and there have been many studies on this area conducted by several researchers. Though inscription on the restrooms is also used by citizens of Saudi Arabia in their communication. Thus, toilet graffiti is a unique window into the relationship between gender, language, and social context. Whereas, the other public places have less painting, drawing and relationship between both genders. Therefore, we would like to propose this paper in saudi's graffiti. Also, the importance of how women and men communicate, no comparable situation in which both men and women write graffiti has ever been studied. This study sought to set a new benchmark: focusing not only on at the topic of graffiti but also at the language style in which inscriptions were written, and not in male and female toilets but also in an analogous mixed-gender context in different places. Strong gender differences are found for topic in the findings. Female's Graffiti tends to be more polite, love, relationship, less assertive and interactive, whereas those from the male graffiti indicate more argumentative and negative behavior with racial discrimination. One of the most important results is indicated that both genders are used graffiti in toilet stall in order to express their attitude, psychological case whether positively or negatively. They want to keep on themselves away from their people sights. Gender differences in language style are more subtle but generally consistent with those found in other contexts. Gendered language is mitigated in the mixed-gender context. Topics in the mixed-gender context are a composite of the topics found in the men's and women graffiti but also included the only sexist remarks in the data.*

Keywords: *Graffiti; gendered communications; anonymous communications; thematic analysis, attitude and Genders*

Background

Language is the main tool of communication and transmission of beliefs, thoughts, arts and sciences. It helps people to understand each other, so it is considered as a social activity. Graffiti, as a part of the society, depends clearly on the language to reach their ends. There is a close relationship between language and the activities of graffiti. Language is a means of shaping policies in words via inscriptions of texts or graffiti writings which reinforce ideologies in the public to attain specific objectives.

Graffiti, in this case plays an essential role in communication and information transmission, since it is a sort of scribbling and inscription. Graffiti is a means of " the combination of statements and drawings" (Walker Red ,1935:96). In addition, Graffiti "refers to any kind of crude or casual drawings, slogan, inscription, or writing scratched or scribbled on buildings, walls, fences, or other public surfaces" (D'Angelo, 1976). The purpose of graffiti is to convey a message of a text via inscription. So, conducting studies on transmitting the ideas, thoughts, attitudes, languages, and inscriptions sheds more light on the issue of graffiti manipulation.

In the Arab World, graffiti is one of the most important tools that are used to spread thoughts, ideas, attitudes, styles, and behaviors or morals to the local societies indirectly in order to convince people with specific ideologies, unique behaviors, and specific information. The geographical location of Saudi Arabia, however, shows the importance of the country at various levels including the birthplace of Islam, the largest storage of petroleum in the world and the international transportations. In this capacity, graffiti plays a crucial role in the Saudi society. We can see different ways of graffiti in various places including restrooms, toilets ,homeless places, universities, malls , street walls , cars and t-shirts

The current study will focus only on graffiti in different situations in local communities. The study will try to answer the following questions : 1. What are the roles of the variations of graffiti among Saudis people ? 2. What are the reasons behind the instances of variations of graffiti in different places ? 3. Why do Saudi teenagers write on the walls, tables , desks , doors, bridges and homeless places , wall of cemetery and scripture on the stones more than girls? 4. What are the bahaviour consequences of graffiti in these places?

Statement of the Problem:

After surveying the related literature, the researchers noticed that there are many studies conducted to investigate the graffiti to reveal the reasons behind this phenomenon. Not many studies look at the role of graffiti in Saudi Arabia. What are the reasons behind the phenomenon?

Nonetheless, Martyna (2007) points out the critiques of social phenomena named as 'commitment' via two types of contemplations involving narrative and graffiti . He talks about graffiti in media and academic literature . He finds that graffiti are commonly illustrated as vilified terms separated from the norm of society or consolidated by the modern art of discourse . He supports his study by the Boje's concept of "antenarrative' to challenge the dichotomous depictions of graffiti , particularly in relation to the notion of commitment".

In the same vein, a study conducted to address the same issue by Lakeoff et (1975) compares women's speeches and men's speeches . They find that women's speeches are more polite and less assertive than men's speeches . They add that women always utilize question tags, hypercorrect grammar , certain adjectives and expletive statements while men imply their viewpoint directly and a few of men use lovely words including pretty, cute and nice . In addition , women's language concentrates on personal traits whereas men pay attention to aggressive behaviors and refuse interpersonal issues by contesting.

Although there are several studies examining graffiti in different parts of the world, this phenomenon has not been extensively studied in Saudi Arabia. Therefore, the current study will try to bridge the gap by using the content analysis and thematic analysis approach to analyze the variations of instances of graffiti and to identify the reasons behind it in Saudi Arabia. To achieve the objectives of the study, the researchers will deal with graffiti in different situations .

Objectives of the Study:

The study will address the following objectives:
1. To identify the reasons behind the instances of variations of graffiti in Saudi Arabia
2. To classify the professional skills behind the widespread of graffiti in Saudi Arabia
3- To categorize the types of graffiti in terms of color , sex and age .
4- To analyze the ideological variations of graffiti in Saudi Arabia

Significance of the Study:

During the history of the graffiti studies, many studies have been conducted to investigate graffiti, but a limited number of studies have dealt with the issue of variation in instances of behavior in graffiti and the reasons behind it. Therefore, the present study will try to shed more light on the phenomenon of graffiti in gender at different situations .

Second, it seeks to identify the reasons that lead to such variation. The main goal of this study is to provide a new understanding to the role of Saudi graffiti. Another aspect of the significance of the present study lies in attempting to reveal how this manipulated graffiti affect the opinion of their readers .

Literature Review

The following sections review related literatures in graffiti. Few studies have been conducted on graffiti . The two researchers attempt to review a number of studies dealing with graffiti. The thematic analysis approach will be used to expose texts, discursive, sociological factors and others . The focus is on studies of graffiti in general, and the toilet stalls, school's walls and streets and other places in Saudi Arabia , in particular.

Thematic Analysis Approach

According to Wikipedia (2016) "Thematic analysis is one of the most common forms of analysis in qualitative research". This approach intends to investigate the patterns of themes via collecting data. Such themes are expressed across data sets .This approach is provided by Chang, Fisher and Meredith (2012). In this respect, the two researchers will apply the Thematic Analysis Approach in the current study. Since this approach concentrates on the varieties of data sets from different restrooms. Thus, the study consists of many themes involving alliances, love, tagging, hetrosexual affairs, competition, philosophy, economy and political issues. All of these themes will be related to the contexts, texts, political issue conversations, phrases, proverbs, poems and drawing on the restrooms.

Saudi Arabia

Saudi Arabia is a huge country. It covers more than 2000 kilometers from the north edge to the south border. In this wide area, habits and traditional customs are not the same in the Kingdom of Saudi Arabia(KSA). The thematic issue of Saudis' understanding refers to how men and women communicate with each other by using graffiti. Graffiti, therefore, expresses a specific interaction between diverse types of genders comprising women to men, women to other women, and men to men. They express their feelings and privacy in particular places. The toilet graffiti , in this case, plays a significant role in the interaction between males and females in different domains . Public toilets and other places such streets are more salient than specific or private areas for both genders.

Notwithstanding, the local language is Modern Standard Arabic (MSA) and there are many vernacular accents in different places of Saudi Arabia. In addition , there is a pidgin language which is coming on the surface by the interaction between Saudi people and non-native speakers including Pakistani, Indian , and Bangladeshi expatriates and others . This new language creates a weak and low standard level of the Arabic language. It is a useless language in the local society. Saudi people use this dialect with non-natives in order to make communication with them easily. In fact, it is a very dangerous dialect which will affect new generations.

In contrast, the Arabic language is used extensively in various fields of the Saudi peoples' life including institutions, centers , public and private schools, universities, and even in interactive settings where non-Arabic speakers communicate. In all of these situations , we can see various kinds of graffiti. Different people in Saudi Arabia seem to use graffiti widely and easily . In fact, there are no rules to prevent the widespread of graffiti in various places . Many people express their attitudes, thoughts , beliefs and their arts on the wall by graffiti . In fact , there is no limited age of graffiti's writing on the building , restroom, bridges and slogans in Saudi Arabia . Thus, it is widespread and remarkable in different places where anyone can draw or scribble .

In this capacity , all of these settings lead the two researchers to explore graffiti in Saudi Arabia .This kind of art is widespread in the country. It has two pragmatic aspects, positive and negative. The positive side of graffiti is clarified across inscription writings like Al-Daryah and Madin Salah. Whereas , the negative one is exhibited on the toilets' walls and doors and other buildings . Many bad words are written there whether directly or indirectly containing sexual orientation , harassment, insults ,offense and racial discrimination .

Studies Related to Graffiti

In this state of affairs, graffiti is a worldwide phenomenon that expresses deep feelings of communication and interaction between people indirectly. This word derives from an Italian word which is so-called "Graffitio. " It means an art of scribbling and inscription. Graffiti is " the combination of statements and drawings" (Allen Walker Red 1935:96). A few studies have been conducted on graffiti in different situations .The social contexts of graffiti in restrooms is a means of communication between genders. It expresses the direction and attitudes of interaction thoughts and behaviors in various dimensions. Graffiti represents scratching and scribbling on walls, restrooms ,slogans , buildings and stalls.

However, graffiti "refers to any kind of crude or casual drawings, slogan, inscription, or writing scratched or scribbled on buildings, walls, fences, or other public surfaces" (D'Angelo, 1976,p: 102). In the human history of culture , D'Angelo(1976) and Fisher, M. L. & Radtke, S (2014) stated that .: Bathroom Graffiti Human Ethology Bulletin – Proc. of the IV ISHE Summer Institute (2014): 68-8169

"…the word graffiti…was originally used by archaeologists to describe the kind of casual writings and drawings found on the walls of ancient buildings in Pompeii, as well as in Roman catacombs and on ancient Egyptian monuments. These graffiti were scratched on plaster and limestone surfaces with sharp instruments or written on walls with charcoal and red chalk by schoolboys, common citizens, and travelers" (p. 102).

In the previous eras, graffiti was encountered in the caves by drawing some inscriptions. Reisner (1971) stated that the first examples occurred in cave drawings of deer and bison in Europe which led to graffiti expressed via Egyptians. He mentioned that "Mayan, Aztec and Incan hieroglyphs, to Latin phrases, then expressed as drawings and etchings in Christian churches, monasteries and dungeons of Medieval Europe, through to European wall graffiti". Interestingly, the sociological issue of graffiti appeared particularly in the 1970s. To support this point of view, Ley and Cybriwsky (1974) investigated autographical graffiti in Philadelphia produced by gang members as territorial markers. More recently, Brown (1995) revealed how her students discovered Hungarian graffiti. The students believed that graffiti would be humorous, political, and philosophical rather than sexual references, profanity, references to Western popular music.

Additionally , some studies on graffiti primarily displayed that many inscriptions of graffiti are done by males . They utilized graffiti in an argumentative debate by dominating the discourse (e.g., Kinsey, Pomeroy, Martin, & Gebhard, 1953; Otta, Tannen 1990 ,1993; Schreer & Strichartz, 1997; Sechrest & Flores, 1969) In contrast, females in liberal universities used more graffiti than male .(Stocker, Dutcher, Hargrove, and Cook (1972).

Political issues figure out many big differences between the two genders in political graffiti. Some of studies indicate that females always use graffiti in writing of some political topics (Schreer & Strichartz, 1997) On the other hands , males display political topics of graffiti (e.g., Loewenstine, Ponticos, & Paludi, 1982; Otta et al., 1996) To support this point of view , a study conducted in North America about graffiti in high schools . The results showed that 80% of the graffiti were written by females Ahmed, 1981; Wales & Brewer, 1976; but see Peretti, Carter, & McClinton, 1977) In the same respect , Otta(1993) found that around 15.4 % of male graffiti about specific political topic were written by males while 14.9 % were written by females. He concluded that both genders were the same with respect to writing about political issues.

Language and Style of Graffiti in different places

One of the most popular factors in graffiti inscription is the style of the language. The language is a means of communication. It expresses the emotional feelings of human beings. These feelings are represented in words, contexts, phrases, statements and body language in interaction whether directly or indirectly. Thus , the language of graffiti

varies , in the case of, men and women. Moreover, there are many divergences between males and females in their graffiti. The content of the language between them has two arguments. These arguments have divided scholars and researchers towards Graffiti into two groups. The first trend refers to researchers such as (Kutakoff 1972 , Loewenstine et al. 1982, Cole 1991, Fitzpatric, Mulac and Dindia, 1995) who declare that women introduce bawdiness, less references to bisexuality, masculinity, sexual interaction, masturbation and gonorrhea infection. In addition , social interaction, personal problems , advice, romantic issues and morality are frequently spread in women's writings. Female graffiti regardless of their viewpoints comprises advisory, impersonal relationship, happiness traits, enjoyable life, tag questions and language with high standard

Another study is done by James (1995) which focuses on the perspective of communication between male and female inscriptions. He seeks a remedy for methodological failings and relates them to the social identity . He finds big differences between male and female writings. He concludes his study by saying that graffiti in female are more polite and interactive whereas in male they refer to negative trends and argumentative concepts . In addition , he adds that gender language is more mitigated in the mixed-gender context .

Furthermore, the socioeconomic status of students is indicated in toilets graffiti. Female students show two levels of socioeconomics. The lowest socioeconomic factor involves toilet romantic writing while the highest level of the socioeconomic background declares less romantic and more erotic writing (Wales and Brewer 1976:115-123) To support this issue, toilet wall inscription by males in the United States deviates from the socioeconomic status. This state of affairs is manifested as a higher form status in professional schools like medicine , law , and dentistry. The comparison between these schools in relation to heterosexual messages and homosexual inscription reveals that the heterosexual messages have more affection than homosexual inscription written by fourth year students (Sechrest and Olson 1971:62-71).

Additionally, Al Rousan (2011) finds difference between Jordanian graffiti in relation to the typographical features in the text messages . He classifies his study into four typographical features including punctuation , letter, number homophones , phonetic spelling and emotion issues. He analyzes more than 2050 text messages utilizing face -to -face communication and computer mediated communication. He reveals that there are gender differences among young Jordanian undergraduates in the text messages of typographical features .

Many researchers around the world analyze and discuss the domains of graffiti in deep detail. The first researcher who observed the widespread of scribbling in toilets was Allen Walker Red (1953). He noted that the stalls of graffiti on the walls of toilets were widely spread. He claimed that graffiti is the way of drawing combined with statements. After that era , Dundes (1966) struggled a new word of graffiti that was so-called ' Latrinalia ' . However, many researchers like Reisner (1971) believe that that graffiti was an old art and old culture referring to many years in the past . Reisner stated that the graffiti on the wall of toilets expressed a specific art via people voicing .

Notwithstanding, there are many studies that found graffiti written by females are more sexual than male graffiti (Bates & Martin, 1980), whereas more by males than females

as in the works of (Schreer&Strichartz, 1997), but no difference between the two genders (Otta et al., 1996) In addition to this state of affairs , Ahmed (1981) reported that male graffiti writing is more erotic inscription whereas females inscriptions are more romantic writing .

Nonetheless, Bruner and Kelso (1980) claimed that men's graffiti often boasted about their sexual conquests, sexual frequency, and sexual prowess in text. On the other hand , graffiti was more relationship-focused and more interactive, with a string of responses and thoughtful replies

The time of Graffiti started from the Egyptian era. Old Egyptians used graffiti in their mummies. It was also found in the Greek temples and the Roman ruins especially in the city of Pompeii (C.F Fraser 258, Malhorn and Romig 30). In that time, they used graffiti as an art, but today it is used differently. This art has two sides, positive and negative. It seems to be positive when it is used as an art whereas it is negative when it becomes a tool of oppression and vandalism. To conclude, toilet graffiti is a unique window to analyze social contexts and the relationship between genders (**Raisul Islam** 2001).

Furthermore, there are two schools in graffiti inscriptions. The first team indicates graffiti as a means of communication for both genders . Female graffiti entails "advice to the love-forlorn and [on] existential issues about life, marriage, and happiness" whereas, male graffiti is more racially degradation or prejudiced (Loeenstine et al ., 1982; Bruner &Kelso, 1981; Otta, 1993; Schreer & Strichartz, 1997; Stocker et al., 1972) In contrast, Graffiti for both genders is indicated as more homophobic, more insulting, offensive and aggressive (Stocker et al., 1972; Solomon & Yager, 1975; Bates & Martin, 1980; Bruner&Kelso, 1981; Otta, 1993)

Methodology

Introduction

This chapter concentrates on the population of the study, the sample, and the main purpose of this study. Moreover, it will discuss in details data collection, validity and reliability of the study and data analysis. Thus, the current study will combine both qualitative and quantitative research approaches. The two forms of data are integrated in the design through merging , connecting or embedding the data . However, as this area of study has never been explored, it will therefore be more of an exploratory nature than a quantitative one .

Research Design

Both research designs can have equal emphasis or one may be more dominant than the other. As mentioned above, the design of this research will be exploratory. The researchers will be reviewing data available from researchers who have conducted studies close in nature to the study that the researchers will be carrying out. They will also use primary data collection tools to get in-depth and valuable insights into this area.

Sampling

The two researchers will use purposeful sampling in order to select the most appropriate information of individuals. Thus, the population of this study will be Saudi people. A sample comprising 120 males and 90 females will be selected from different

people's levels of education specializing in various disciplines including linguistics, philosophy, education, literature, health, economic, sociology and psychology.

Research Instrument

To carry out this study, the researchers will devise a questionnaire of 40 items of different types such as dichotomous questions, open ended questions, Likert questions, and rating scale questions. Therefore, the researchers will divide and categorize data into three sections. The first section typifies the background information about participants. The second one clarifies the positive and negative sides of Graffiti in Saudi Arabia. The last element attempts to investigate the domains behind the widespread of graffiti in the local society .This variety of questions is necessary for the purpose of the study.

Procedures

The researchers will use the following procedures in order to achieve the objectives of the current research.

- Questionnaire—a questionnaire will be designed by the researchers and then will be given to respondents. The researchers will ask them to fill them out. Once filled, the researchers will take the questionnaire back and get the subjects' responses for analysis.
- Group Discussions— The researchers will meet a group of local people and ask them about the reasons behind the instances of variations of graffiti .
- Observation — The researchers will conduct interviews with a few participants by utilizing face-to-face communication individually .

Data Collection

Introduction

Conversation analysis will be one of the methods of data collection. Questionnaire also will be used. Other methods include focus groups and in-depth interviews with subjects. Personal information of the subjects will be kept confidential, only the research findings will be used.

The data collection methods will include both unstructured and semi-structured techniques. In order to achieve the objectives of the present study, the researchers will develop a five-point scale questionnaire consisting of 40 items. These items deal with only the varieties of graffiti in restrooms and are intended to reveal the reasons behind the instances of variations of graffiti . Thus, two experts in the field of linguistics will measure the validity of the instrument.

In addition, the first part of this instrument seeks personal information about respondents' age, gender, and level of education . The second section asks the respondents to express their opinion of graffiti as follows: strongly agree , agree , neutral , disagree and strongly disagree. The questionnaire will be distributed in Arabic to avoid any difficulty in understanding the items in English. Then, the researchers will translate the items from Arabic to English. One of the researchers will distribute the questionnaire to the respondents. It will take at least one month to give the participants the questionnaire and to get it back

Validity and Reliability Of The Study Instrument

To construct its validity, the questionnaire was given to a jury of two experts in linguistics who maintained that it had content validity. Reliability was established by the split-half method. The questionnaire was divided into two halves given to a sample of twenty respondents to answer them. The correlation between the scores given to their answers was then computed . The correlation was 0.80 ; the researchers, thus, concluded that the questionnaire is reliable .

Data Analysis

Introduction

The contexts , texts , phrases of graffiti will be analyzed via thematic analysis approach . Such themes will be pointed out. The meaning of the different themes will also be categorized thematically . It will be illustrated as follows :

SPSS Package

Data collected from both unstructured and semi-structured means which include group discussions, interviews and a questionnaire will be analyzed properly and thoroughly. The data will be analyzed statistically using the SPSS package. The researchers will employ the following statistics: means , standard deviation, percentages and frequencies. The respondents' responses will be divided into two groups. Those who will get 60% or above out of the total of the participants' responses will mark as holding a positive attitude. However, a point of less than 60% will be taken as a negative attitude toward the aspects of graffiti dimensions in Saudi Arabia.

Thematic Analysis Approach

Content Analysis is detailed systematically by examining the particular of contents in order to identify patterns themes. The current researchers will use a thematic analysis approach to achieve some of the study's objectives. This approach is provided by Chang, Fisher and Meredith (2012). The data analysis will be carried out in two methods named as inductive and deductive approaches. The former indicates that theme is strongly related to the data whereas the latter covers less descriptive and focusing on one or two specific aspects. However, the researchers will categorize these themes into many patterns such as love ,tagging , alliance ,degradation (derogation) heterosexuality and insults . After analyzing data , the researchers will utilize the percentage or the frequency to obtain whether significant differences exist relevant to research questions .

Results and Discussions

Graffiti is an artistic theme which plays a significant roles in peoples' behaviors , socioeconomic , attitudes and emotional issues. In Saudi Arabia , as a case study , graffiti is developed in various cities such as Riyadh, Jeddah and Dammam . We can see various , inscription and paintings styles from street artists all over the places there . We can find graffiti in restrooms stalls, streets bridges, schools' walls, and other places. In addition , the government decorates streets' wall by some beautiful pictures . Other than that , the local people of Saudi Arabia are very pleased welcome due to all the visitors which presents an art of expressions of their attitudes to foreigners . In this respect, young , old , male and

female people around the country express their feelings and behaviors towards others as a social representations .

Saudi Arabia is Islamic country . It has the most sacred places in the world involving Makkah and Al Maddinah . All the people there 100 % are Muslims . There is no religion competes with Islam . This style of Islam leads the local people to guide themselves to the right ways . As a matter of fact, we can find the majority of graffiti in Saudi Arabia is less than the nearest countries or around the world . The most important reason behind this issue is related to the deep of faith and the sociality of the local people . However , the language that is used in Saudi Arabia is Arabic . Most of the graffiti that is utilized in the local communities is Arabic language . We also find some scripture and slogan by other languages such as English .

The findings display positive attitudes towards Saudis in terms of graffiti who becomes a professional artist in paintings , scriptures and calligraphy . Such this attitudes of writings on walls do occurs in graffiti . The majority of the respondents of this attitudes is around 25% comparing with the negative attitudes . On the other hand , we can find polite, romantic style in communication between both genders in restrooms rather than other places . The frequency of the participants includes 86 % avoiding political , social and sports styles which covers 14 % of frequency .

Writing is the most popular factor is used in graffiti rather than scripture and paintings. Such this issue refers to the easiness way of writing . The wide spread of color in graffiti whether in painting or writing is red, black and blue colors. The majority of the frequency that is using famous colors is 88% comparing with other different colors. The lowest percentage is covered 12 % of the respondents .

According to the gender of graffiti, we can find females section are more romantic, polite , relational , soft style , beautiful painting and less assertive than men's speeches . The lowest frequency of graffiti is 22 % whereas the highest is 78 % . The findings also show the graffiti in terms of age considering to the highest frequency which is related to ages from 12 to 16 (teenagers) with percentages 60 % . In other words , 10% of frequency refers to less than 12 years-old whereas we can find ages from 16- 20 with percentage includes 18 % . From 20 years-old to above have more than 11 % of frequency . We can conclude this paper by saying that the highest positive attitudes of Saudis towards graffiti refers to females' speech and writing . The second positive behavior betokens to avoid offense, insults , less assertive in both genders because they are Muslims . The third positive issue is linked to professional skills of artist in painting , happiness and laughs characters. On the other hands , the most negative attitudes towards graffiti in Saudi Arabia is referred to racial discrimination, tagging questions , derogation, and aggressive behaviors whether between two genders or the same sex . In addition to this clarification , all the people who are using graffiti in restrooms , under bridges , homeless places and places away from watching have some psychological problem , frustration issue , isolations , disappointments, hopelessness , sadness , unhappiness . Such people like these are not be able to express their feelings , attitudes and behaviors rather than utilizing this graffiti in various places .

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STRUCTURAL EQUATION MODELING AND RELATIONSHIPS BETWEEN MENTAL WELLBEING, RESILIENCE AND SELF-STIGMA.

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Abstract: *This study investigated mental wellbeing of postgraduate and undergraduate students of International Islamic University Malaysia. Precisely, the objective of this study was to verify the validity of a proposed mental wellbeing model that include resilience and self-stigma exogenous variables, another aim of the survey was to determine if gender, education level, material status, international and non-international student and location where they live moderated the associations between mental wellbeing and its predictors. The survey adapted existing instruments: Warwick-Edinburgh Mental Well-being (WEMWB) Scale of 14-item questionnaire, Brief Resilience Scale of 6-item questionnaire and Self-Stigma of Seeking Help Scale (SSOSH) 10-item questionnaire and a demographic survey was developed for this study. The data were collected randomly from 315 student of International Islamic University Malaysia. To address the research objectives, the data were analyzed with confirmatory factor analysis and structural equation modeling. The results obtained by this study shows that, the model had an excellent fit, because RMSEA .007 < .06, CFI .999 > .95, Based on these results it can be concluded that the proposed model is valid, approving the very first hypothesis for this study. Additionally, gender, educational, location when they live and International and Malaysian student, did not moderate the predictor-mental wellbeing relationships.*

Keywords*: Mental wellbeing; Resilience; Self-stigma of seeking help behavior.*

Introduction

Well-being has been regarded as a complex concept in regarding the experience and functioning of human beings. Contemporary research on wellbeing have being categorize in two major views: the hedonic method, which focuses on happiness and defines well-being as pleasure of realization and fulfillment and the avoidance of pain, in other words, maximizing the pleasure and minimizing the pain, and the eudemonic method, which emphasis on self-realization and defines well-being in terms of the degree to which a person is fully functioning (Ryan & Deci, 2006) Self-acceptance is vital to mental health. The incapacity to absolutely accept oneself can lead to a variability of emotional complexity, such as uncontrolled anger and unhappiness. Self-acceptance can cause an individual to see one's true self. One of the simplest and utmost characteristic approaches of letting down self-evaluation by realizing and replacing with acceptance mindfulness rather than mindlessness (Langer, et al., 1989). Mindlessness can lead to automatic dependency on preconceived nations that cannot be reach by the conscious mind, leads to rigid behavior that is rule and governed rather than rule

guided (Langer, 2009). When individual view him/herself mindfully, they can accept themselves unconditionally. And to realize that they are in control of every decision around their personal world (Carson and Langer, 2006)

Ryff (1989) created a model of psychological wellbeing that includes six different components of positive psychological functioning. These dimensions include wellness of individuals to fully realize their positive attitude and unique talents they have. The first dimensions *1. Self-acceptance*, "positive evaluations of oneself and one's past life" *2. Environmental mastery*, "a sense of continued growth and development as a person" *3. Purpose in life*, "the belief that one's life is purposeful and meaningful". *4. Positive relations with others*, "the possession of quality relations with others", *5. Personal growth*, "the capacity to manage one's life and surrounding world effectively". *6. Autonomy* and "a sense of self-determination" (Ryff and Keyes 1995; Ryff and Singer 2008).

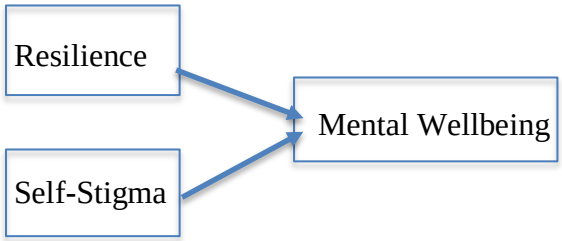
The World Health Organization ([WHO], 2005) defines mental health as, "a state of complete physical, mental and social well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (p. 18). According to the CDC (2013, October 4), "mental health" is commonly used in reference to mental illness. Whiles both are related with each other, and signifies different psychological states. Despite the uncertainty, mental health is a part of an individual's psychologically health and well-being (Markoulakis & Kirsh, 2013). Thus, as a saying goes that there is no health without mental health (WHO, 2015). Mental health contains three domains: emotional health, social wellbeing and psychological wellbeing (CDC, 2013, October 4; USDHHS, 2012). These domains are crucial for the individual wellbeing.

Bradburn's (1969) define wellbeing based on his study on psychological reactions of people like coping and difficulties. His study was focused on differences between negative and positive affects in people's everyday lives. In his view, an individual will experience a high degree of psychological wellbeing if positive affect dominates. Likewise, a low degree of well-being is characterized by negative affect. According to Diener (1984) psychological well-being refers to how people evaluate their lives in terms of cognitive appraisal (i.e. appraisal of one's life satisfaction), or affective appraisal (i.e. hedonic evaluation based on feelings and emotions). The author assumes that most people are able to evaluate their life and to offer subjective judgments, such as, good or bad, and negative or positive effects. Thus, he concluded psychological well-being includes both positive and negative mental health (Diener, 1984).

Corrigan (2004) and Vogel (2006) have conceptualized two types of stigma towards help seeking behavior: Public-stigma and Self-stigma. Public stigma is the perception of individuals in society who sees an individual who seek out treatments for mental health is unacceptably and undesirably by the society at large (Vogel et al., 2006). Self-stigma of seeking psychological help is a person undesirable perception of themselves for seeking help behaviors (Corrigan, 2004). Self-stigma happens when people adopt the public attitudes and opinions due to this will lead to several undesirable consequences. In this study the research is more concentrated in Self-stigma rather than Public stigma, to describe the negative consequences that effects people with psychological barriers.

This study investigated the relationship between resilience and self-stigma with mental wellbeing. The literature review emphasized that the relationship between mental wellbeing and resilience is one of the most fascinating topics in educational positive psychology, in the fields of human development (Ryff, Love, Essex, & Singer, 1998).

Every person goes through life challenges, from shocking condition to less shocking condition. Every individual responds different to their life challenges. Resilience is "the capacity to bounce back, to withstand hardship and repair yourself" (Wolin and Wolin, 1994). Resilience is a positive coping strategic that is attributed to an individual's ability to overcome adversity and hardships (Werner & Smith, 1982; Gupton & Slick 1996). Resilience can grow in an individual once they have bounced back from life difficulties (Richardson, 2002) According To the theories of psychological wellbeing. The present study attempted to investigate the relationship between the mental wellbeing, resilience and self-stigma. The proposed conceptual model of this study is as follow.



Objective of The Study

The objective of this study was to verify the validity of a proposed mental wellbeing model that include resilience and self-stigma exogenous variables, another objective of the survey was to determine if gender, education level, material status, international and non-international student and location where they live moderated the associations between mental wellbeing and its predictors. Another aim of this study was the role of self-stigma as mediator between resilience and mental wellbeing. In relation to the previous findings and to conceptual framework, the researcher hypothesized that:

H1: The hypothesized structural model of metal wellbeing is fitted to the current data
H2: Resilience has a positive effect on mental wellbeing of International Islamic University Students.
H3: Self-stigma has a negative effect on mental wellbeing of International Islamic University Students.
H4: Self-stigma mediates between resilience and mental wellbeing.
H5: The positive effect of resilience on mental wellbeing is stronger for females than for males.
H6: The negative effects of self-stigma on mental wellbeing is stronger for international students Than Malaysia students.

Method

The aim of this research was to explore the validity of a proposed model including relations between resilience and self-stigma and mental wellbeing in a sample of International Islamic University students. The data were analyzed using structural equation modeling. First, the researcher tested, Three-Factor Structure Model of Mental Wellbeing, via confirmatory factor analysis (CFA). The hypothesized structural model was tested simultaneously to determine the best fitting model. To evaluate the research hypotheses, the study applied structural equation modeling (SEM) using the AMOS (version 22) model-fitting program. This study employed the following measurements.

Measurement of mental wellbeing

To examine the mental wellbeing in this study the researcher used the Warwick and Edinburgh Mental Wellbeing Scale (WEMWBS) is a scale designed to assess and evaluate the mental wellbeing, this scale measures the hedonic and eudemonic aspects of wellbeing. It contains 14 positively items, rated on a 5-point Likert scale, The WEMWBS was developed in the UK and has shown good validity, test–retest reliability (0.83), and internal consistency (0.91).

Measurement of Resilience

To assess resilience the researcher used the six-item Brief Resilience Scale (Smith et al., 2008). On a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), BRS is a scale designed to evaluated the personal resilience or ability to recover from stress (*e.g. 'I tend to bounce back quickly after hard times', 'It does not take me long to recover from a stressful event' and 'I usually come through difficult times with little trouble'*.) This scale has demonstrated a good excellent internal reliability as reported by previous studies with Cronbach's alphas ranging from 0.80 to 0.91 (Smith et al., 2008)

Measurement of Self-stigma of seeking help

To examine the self -stigma the researcher used the 10-items *Self-stigma of seeking help scale)*. On a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree),(Vogel et al., 2006) developed and validated a scale called Self-Stigma of Seeking Help (SSOSH). The Items on this scale were created using the definition of self-stigma to seek psychological helps. The feelings of anxiety for seeking help or going to therapist, will result in reducing a person self-centeredness, their contentment, their self-assurance, their abilities, and their overall self-value as an individual will be reduced (p. 326).

Result of The Study

The statistically significant of the mental wellbeing model was examined by using the criterion introduced by Schumacker and Lomax (2004) regarding the non-statistically significant of the chi-square test. As shown in Table 1, the non-statistically significant chi-square signifying that the mental wellbeing model fits the current data p = .442. The normed chi-square is CMIN/df = 1.015.

Table 1

Model	CMIN	DF	P	CMIN/DF
Default model	32.495	32	.442	1.015

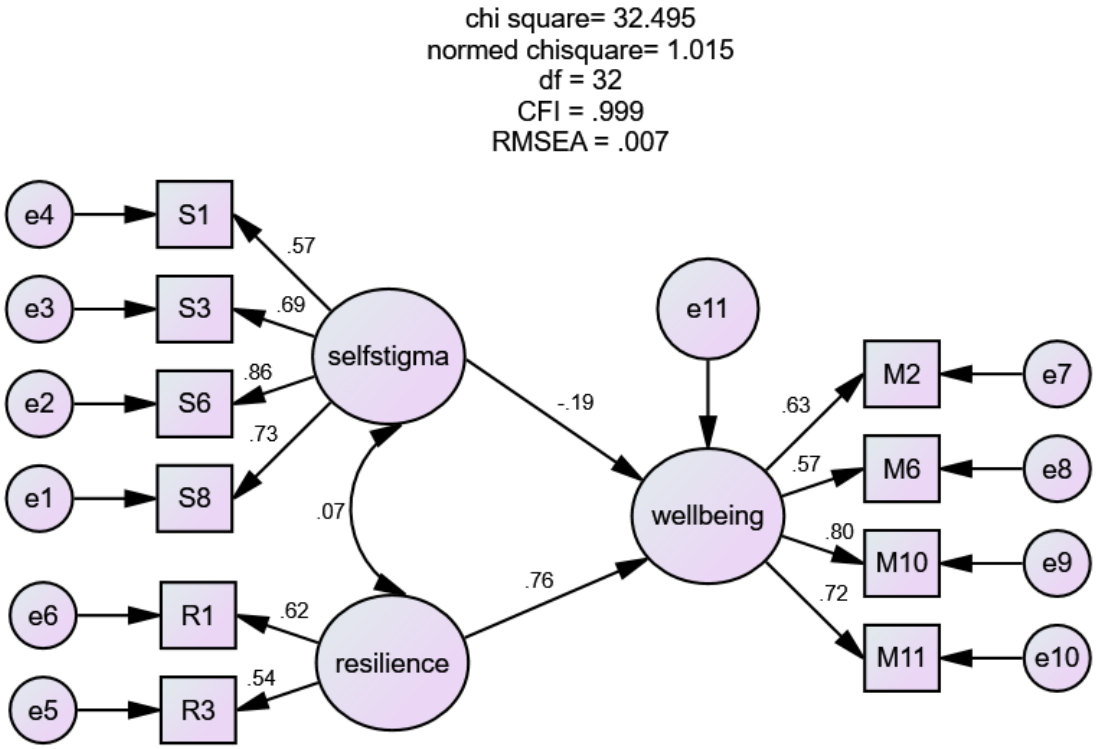


Figure 1. CFA Results of Three-Factor Structure Model of Mental Wellbeing

The results obtained by this study as shown below see table 2. The model had an excellent fit, because RMSEA .007 < .06, GFI .980 > .95, AGFI .965 > .90 IFC > .90, CFI .999 > .95, NFI .964 > .95, IFI .999 > .95, TLI .999 > .95, and PCLOSE non-significant .986 Based on these results it can be concluded that the proposed model is valid, approving the very first hypothesis for this study.

Table 2

Model	GFI	AGFI	CFI	NFI	IFI	TLI	RMSEA	LO90	HI90	PCLOSE
Default Model	.980	.965	.999	.964	.999	.999	.007	.000	.043	.986

As hypothesized, does resilience have a positive effect on mental wellbeing on IIUM students; the variable assessed in this analysis was positively related with mental wellbeing. Thus, does self-stigma has a negative effect on mental wellbeing of International Islamic

University Students. The variable assessed in this research was negatively related with mental wellbeing. Approving the second and third hypothesis.

Testing the mediating role of Self-stigma in the relationship between resilience and metal wellbeing was achieved through the bootstrapping method defined by Preacher and `Hayes (2004). Bootstrap resampling, which is accessible in AMOS, is one possible solution for estimating model test statistic p values and parameter standard errors under non-normal data conditions (Nevitt & Hancock, 2001). The AMOS program has the Bollen-Stine option – a modified bootstrap method for the chi-square This option performs a transformation on the original data that forces the resampling space "To satisfy the null hypothesis, making the model-implied covariance matrix the true fundamental covariance matrix in the population" (Bollen & Stine, 1990). In this study the re-sampling or bootstrapping method was used on 200 samples to achieve multivariate normality. Results showed that that the model fit better 74 bootstraps samples. It fit worse or failed to fit 126 bootstraps samples. Testing the null hypothesis that the model is correct, Bollen-Stine bootstrap p = .632 was obtained

The direct effect of Self-Stigma on mental wellbeing was insignificant (β = .734, p > .001) The indirect (mediated) effect of self-stigma on mental wellbeing was statistically significant (β = .000 p < .001). To conclude that the model has no mediation effects because resilience and mental wellbeing is not significant in the process of the mediator of self-stigma. The indirect effect of self-stigma on resilience and psychological wellbeing were insignificant β=.009, standard error (SE)=.025 p< 0.01. 95% bias-corrected confidence interval (.456; .010) and Percentile method 95% confidence interval (-.059; .016) p<0.01 see table 3 displays the results of the meditational analysis.

Table 3 Bootstrap Results: Standardized Indirect Effects

			Bias-corrected method		Percentile method	
Path/Effect	β	SE	95% confidence interval	p-value	95% confidence interval	p-value
R-SS-MW	.009	.025	(.456; .010)	.456	(-.059; .016)	.702

Invariance of the Mental Wellbeing Model

Another objective of the study was to explore the structural invariance of exogenous variables to effect student's mental wellbeing, across four possible moderators, such as, gender, educational level, location when they live and International and Malaysian student, To test for gender-invariance, a simultaneously analysis for both the male (n1 = 128) and female (n2 = 187) samples was done, firstly the structural paths were freely estimated the Chi-square value was unrestricted, and then by constraining the structural paths (Resilience→Mental Wellbeing; Self-Stigma→Mental Wellbeing;) The values have to be identical for both groups. The constrained structural path of wellbeing model estimated another Chi-square value, which was tested against the unrestricted values to see if there are any statistically significant differences. This method was applied the same for, educational level, marital status, International and Malaysian student of the mental wellbeing model. The invariance test across gender groups resulted in a statistically insignificant change in the Chi square value; $\Delta\chi 2$ (df = 64) = 66, p > .001.

The constrained model did not get worst-off, given the equality constraints. The values of CFI and RMSEA Chi-Square remained similar. The path coefficients did not vary significantly

across gender. Therefore, gender did not interact with the exogenous variables to effect mental wellbeing of students,

To conclude, gender was not a moderating variable in this study. Furthermore, the ethnics invariance test yielded no-difference statistics between International and Malaysian students. The same goes for other groups of demographic variables such as, education level and location where they live. The interactions between education level groups and location where they live groups with two exogenous variables did not produce inconsistent results in student mental wellbeing model. In summary, the two-predictor of mental wellbeing model was applicable regardless of gender, ethnicity, education level and location where they live.

Conclusion

The result of this study expands previous studies on mental wellbeing; its relationship between resilience and self-stigma was employed on the mediating role of the presence of self-stigma. The relationship between resilience and mental wellbeing, and the relationship between self-stigma and mental well-being. Taking into consideration that the resilience was positively related with mental wellbeing. A study done by Maria Elvira De Caroli and Elisabetta Sagone. They examine the relationships between resilience and psychological wellbeing in late adolescents the result shows that adolescents with self-fulfilling profile reported higher resilience and psychological well-being than the others. However, self-stigma was negatively related to mental wellbeing. A study done by Link 1987 suggested that stigma affects life satisfaction in terms of employment, income and housing. Rosenfield's (1997) stated that stigma affects social outcomes, in an away through self-concept effects.

This study investigated the mediation and moderation effects of the independent variables providing descriptions for the outcome variable the mediators and moderators can explain why or how a direct relationship occurs between and independent variable and outcome variable. To the best of researcher knowledge, no pervious study has yet examined mental wellbeing as mediator and moderator in the relationship between self-stigma and resilience.

This study aimed to examine how self-stigma serves as indirect mediators of mental wellbeing. It is not easy to find a full mediation in such cases, since self-stigma can be attributed to fear and anxiety. As the result there was no significant indirect effect of self-stigma influencing mental wellbeing through resilience. According to the results of this study's it is recommended, future studies must endeavour to access more diverse samples. Approaches such as experimental studies, and longitudinal studies might lead to a reliable result the relation between Mental wellbeing, resilience and self-stigma. Therefore, more complex analysis of predictors and mediators of mental wellbeing should be examined in a future.

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EXPLORATORY FACTOR ANALYSIS OF ENTREPRENEURSHIP TRAITS AMONG ENGINEERING STUDENTS

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Abstract: *To meet the demand for a sustainable global economic development and challenges, it is crucial for engineers to possess entrepreneurship traits on top of their technical competency. In understanding the entrepreneurship traits specifically among the engineering students in Malaysia, limited studies are available as compared to the business students. In contrast, the European and western countries had long pursued the interest in measuring entrepreneurship traits among engineering students. In view of this situation in Malaysia, a measuring instrument was developed and assessed for reliability using the exploratory factor analysis procedure. Quantitative data was collected from 346 engineering students using structured survey. Based on the reliability testing, the final instrument obtained comprised of nine (9) items yielding two (2) dimensions that is perseverance (6 items) and social & cultural awareness (3 items). This study described in detail the EFA process for entrepreneurship traits construct.*

Keywords: Entrepreneurship Traits, Entrepreneurship, Engineering Students, Engineering Education

Introduction

The understanding of Entrepreneurship Trait (ET) and the ability to measure the factors are essential in determining the entrepreneurial level of the students specifically the engineering students. Identifying and monitoring entrepreneurship traits would provide a substantial interest among researchers. At the same time, policy makers can be enlightened on the condition and impact of entrepreneurship in education.

Engineers design and produce products that meet customer needs, that are safe, reliable, efficient and competitive in the global market (Byers, Seelig, Sheppard, & Weilerstein, 2013). With the technical knowledge, engineering is valuable in solving technical problem but problem solving alone is however insufficient to create new products or disruptive technology. Engineers should also be able to incorporate the importance of customer

awareness and to focus on societal needs and values the lives of others. With this situation Kern Entrepreneurship Education Network (KEEN) worked on preparing more entrepreneurial engineers that is to train future engineers how to be entrepreneurially minded

in order to be a key influencer in creating new products (Kriewall & Mekemson, 2010). Consequently, there is a need to strengthen the engineering students with the appropriate mindset especially those with the entrepreneurial characters.

A significant volume of research in the western and European countries on entrepreneurship has emerged over the past decade (Arasteh, Enayati, Zameni, & Khademloo, 2012; Chell, 1985; Rauch & Frese, 2007; Sesen, 2013). Theorist, academicians and policy makers discussed various topics of entrepreneurship such as entrepreneurship and small business (Gibb, 2007; Gorman, Hanlon, & King, 1997; Zimmerer, Scarborough, & Wilson, 2002), entrepreneurship education for business and non-business students (EC, 2008; Hynes, 1996; Jackson & Chapman, 2012; Kirby, 2004), entrepreneurship intention (S. Z. Ahmad, Roland Xavier, & Rahim Abu Bakar, 2014; Bae, Qian, Miao, & Fiet, 2014; Choitung, Hongyi, & Kris, 2012), entrepreneurship characters (M. Ahmad & Abdul, 2013; Arasteh et al., 2012) and many more.

Despite large volumes of studies on entrepreneurship among students in Malaysia, there remain a lack of adequate studies that lead to measuring entrepreneurship traits among the engineering students. This situation limits the ability to understand engineering students' characters and capabilities. The lack of quantitative evidence also limits the ability to understand the engineering student's entrepreneurship traits in promoting entrepreneurial minded engineers. Ministry of Higher Education has initiated the entrepreneurship education the last ten years and later strengthen the entrepreneurship education in the Action Plans 2011-2015 and Education Blueprints 2015-2025 for schools and higher education. The commitment continued with Entrepreneurship Action Plan 2016-2020. In these action plans and blueprints, the learning institutions is expected to enhance entrepreneurship education in order to transform and enhance the entrepreneurship programmes including more practical components and incentives for excellence in entrepreneurial learning (KPT, 2015). Therefore, the development of instruments measuring entrepreneurship traits is crucial, not only to address existing gaps in knowledge, but also to establish reliable education tools to gauge entrepreneurship mindset.

In this paper, entrepreneurship traits refer to abilities, attitude and characteristics of a person's experiences and actions which are the constructs that will be measured. Considering the implication of previous research in the related body of literature, the development of a research framework was self-developed to measure the entrepreneurship traits. The primary goal of this study is to provide empirical support on the validity and reliability as well as the identification of several factors for each construct.

Research Instrument

The conceptualization of entrepreneurship traits for this instrument derived from the (Charland, 2014). The researcher also drew upon the 21st Century Skills framework from Jim

Soland, Hamilton, and Stecher (2013) and Ananiadou and Claro (2009). After extensive review of different sources and proposing several items for measuring entrepreneurship traits, the survey instrument for the study was developed. To ensure content validity, the instrument was presented to the experts in the field; with the objective of eliminating any ambiguity or unclear words from the questionnaire (Awang, 2012; Sekaran & Roger, 2013). A pre-testing

process was conducted by selecting 36 engineering students' respondents from public and private universities. A structured questionnaire was developed for data collection to measure ET constructs which consists of nine (9) items measured using five-point Likert scale. The Likert-scale used was: 1 = "Strongly Disagree" and 5 = "Strongly Agree". Table 1 shows the items for Entrepreneurship Traits. There were four (4) constructs and eleven (11) newly developed items for this study. Among the 11 items of the construct, 3 items belong to initiative dimension, 2 items belong to perseverance dimension, 2 items belong to adaptability dimension and 4 items belong social and cultural awareness dimension.

Table 1: Items for Entrepreneurship Traits

Constructs	Items
Initiative	I belief I have a positive attitude I belief I am a self-starter I always get things done
Perseverance	I am determined to succeed at something and keep trying until I got it right I have high determination that push me to keep going and keep trying through times
Adaptability	I can adjust myself to different conditions I can make changes to response to new environment
Social Awareness	I am aware of the differences and similarities between people from other countries I know about cultural characteristics, history, values, beliefs and behaviors of other ethnic or group I am aware of other cultural attitudes I respect and value other cultures

Research Methodology

Majority of the research works on entrepreneurship were carried out in developed countries including European, Organization for Economic Cooperation and Development (OECD) countries and the Western countries. Many researches were influenced by Kuratko (2003), the OECD (OECD, 2009) and KEEN framework (Keen, 2017), where established guidelines for measuring particularly entrepreneurship education and related areas. This study is to develop a valid and reliable measure for entrepreneurship traits (ET) constructs among engineering

students in Malaysia. The population comprised of undergraduate and diploma students from engineering discipline. A total of 346 engineering students as the respondents from both public and private universities. Data was collected using structured survey questions and online survey. EFA was conducted in the study, where the principal component analysis (PCA) was employed as the factor extraction method and a Promax rotation as the rotation method. The decision to determine the number of factors and items on the following principles: i) Kaiser-Meyer-Olkin values (KMO) test, > 0.6, ii) Bartlett's Test Factor Significant value, $p < 0.001$ and iii) Factor loading for items > 0.60.

Descriptive Analysis

Table 2 show a total of 11 items were measured on the Entrepreneurship Traits spread over four constructs: Initiative, Perseverance, Adaptability and Social Awareness. Initiative has three items, Perseverance has two items, Adaptability has two items and Social Awareness has four items. The respondents revealed that the importance of both Perseverance and Social Awareness (average mean score: 3.88) as conditions for them to succeed than Initiative (average mean score: 3.80) and Adaptability (average mean score: 3.81).

Table 2: Descriptive Analysis for Entrepreneurship Traits

Code	Items	Mean	Std. Dev.
ET1	**Initiative**		
QI66	I belief I have a positive attitude	3.89	0.848
QI67	I belief I am a self-starter	3.63	0.846
QI68	I always get things done	3.89	0.846
	All items in Initiative	**3.80**	
ET2	**Perseverance**		
QP69	I am determined to succeed at something and keep trying until I got it right	3.88	0.797
QP70	I have high determination that push me to keep going and keep trying through times	3.88	0.820
	All items in Perseverance	**3.88**	
ET3	**Adaptability**		
QA71	I can adjust myself to different conditions	3.79	0.785
QA72	I can make changes to response to new environment	3.82	0.771
	All items in Adaptability	**3.81**	
ET4	**Social Awareness**		
QS73	I am aware of the differences and similarities between people from other countries	3.90	0.800
QS74	I know about cultural characteristics, history, values, beliefs and behaviors of other ethnic or group	3.68	0.858
QS75	I am aware of other cultural attitudes	3.78	0.828
QS76	I respect and value other cultures	4.14	0.802
	All items in Social Awareness	**3.88**	
	Mean	**3.84**	

The mean score ranged from the lowest of 3.63 (item QI67) to the highest 3.89 (items QI66 and QI68) for the three items in Initiative construct. The standard deviation ranged from 0.846 (QI67: 0.846/3.63 = 23.30 percent and QI68: 0.846/3.89 = 21.75 percent) to 0.848 (QI66: 0.848/3.89 = 21.80 percent) which indicate that the scores are packed around the mean. Perseverance has two items with similar mean scores of 3.88 (items QP69 and QP70). The standard deviation ranged from 0.797 (QP69: 0.797/3.88 = 20.54 percent) to 0.820 (QP70: 0.820/3.63 = 22.59 percent) which indicate that the scores are packed around the mean. The mean score ranged from the lowest of 3.79 (item QA71) to the highest 3.82 (item QA72) for the three items in Adaptability construct. The standard deviation ranged from 0.771 (QI72: 0.771/3.82 = 20.18 percent) to 0.785 (QA71: 0.785/3.79 = 20.71 percent) which indicate that the scores are packed around the mean.

The mean score ranged from the lowest of 3.68 (item QS74) to the highest 4.14 (item QS76) for the four items in Social Awareness construct. The standard deviation ranged from 0.800 (QS73: 0.800/3.90 = 20.51 percent) to (QS74: 0.858/3.68 = 23.32 percent) which indicate that the scores are packed around the mean. High standard deviation for items were due to variation of background of the students, type of university attended and level of education.

All 11 items achieved more than 3.60 mean values. The lowest mean score is 3.6 (item QI67: *I belief I am a self-starter*) and the highest mean score is 3.89 (item QI68: *I always get things done*). The overall means score for the construct is 3.83. The data reveals that all the four constructs contribute towards explaining the Entrepreneurial Trait among engineering students. High standard deviation for items were due to variation of background of the students, type of university attended and level of education.

Exploratory Factor Analysis (EFA)

Exploratory factor analysis (EFA) is a widely used and broadly applied statistical technique in the social science (Hogarty, Hines, Kromrey, Ferron, & Mumford, 2005). EFA is a multivariate statistical procedure used to reduce large number of factors into smaller set of factors, establishes dimensions and provides construct validity to name a few (Field, 2005; Williams, Onsman, & Brown, 2010).

In this study, Kiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were conducted to determine sampling adequacy. Bartlett's test of sphericity should be significant at ($P<0.05$) for the factor analysis to be appropriate (Hair, Black, Babin, & Anderson, 2014). The KMO ranges from 0 to 1, but the general acceptable index is over 0.6 (Hoque & Awang, 2016a, 2016b). Total variance explained was also examined as an extraction process of items to reduce them into a manageable number before further analysis. In this process, items with eigenvalues exceeding 1.0 are extracted into different components (Awang, 2012). Rotated component matrix was examined and only items with a factor loading above 0.6 were retained for further analysis. However, the process of EFA and reliability analysis was conducted and only items with Cronbach's Alpha pf 0.70 and above were considered.

Results of Exploratory Factor Analysis

Exploratory factor analysis is a statistical technique used to reduce data to a smaller set of variables. Table 3 shows that the EFA procedure has extracted two components. In this study, only factor loadings above 0.6 will be retained. The rotated component matrix shows that all 9 items having factor loading above 0.6 and therefore 9 items will be considered for further analysis under two dimensions of ET construct.

Table 3: Rotated Component Matrix for Entrepreneurship Trait

Code	Items	Factor	
		1	2
ET1	I belief I have a positive attitude	.809	
ET2	I can adjust myself to different conditions	.785	
ET3	I belief I am a self-starter	.781	
ET4	I have high determination that push me to keep going and keep trying through times	.725	
ET5	I am determined to succeed at something and keep trying until I got it right	.702	
ET6	I always get things done	.651	
ET7	I am aware of other cultural attitudes		.884
ET8	I know about cultural characteristics, history, values, beliefs and behaviors of other ethnic or group		.863
ET9	I am aware of the differences and similarities between people from other countries		.641

Extraction Method: Principle Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

A total of 346 respondents were used in this study. After conducted the EFA, the results consist of two (2) dimensions and nine (9) items. Among the 9 items of the ET constructs, 6 items belong to perseverance dimension and 3 items belong to social and cultural awareness dimension. The KMO and Bartlett's Test results of the study is presented in Table 4.

Table 4: KMO and Bartlett's Test for the items of ET construct

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.878
Bartlett's Test of Sphericity	Approx. Chi-Square	1114.484
	df	36
	Sig.	.000

The general acceptance index of KMO is over 0.6. Table 3 shows the KMO value of 0.878 is excellent as it exceeds the recommended value of 0.6. The significance value of Bartlett's Test of Sphericity must be less than 0.05 for the factor analysis to be acceptable. The Bartlett's Test significance value is 0.000 which meet the required significance value of less than 0.05 (Awang, 2012). Therefore, KMO value close to 1.0 and Bartlett's test significance

value close to 0.0 suggest that data is adequate and appropriate to proceed further with the reduction procedure. Total variance explained is an extraction process of items to reduce them into a manageable number before further analysis. In this process, components with eigenvalues exceeding 1.0 are extracted into different components (Awang, 2012; Hoque, Awang, & Ghani, 2016).

Table 5 shows the EFA has extracted two dimensions of ET construct with eigenvalue 4.227 for component 1 and 1.173 for component 2. This indicates that the items are grouped into two dimensions and would be considered for further analysis. The table also shows the total variance explained is 59.990%.

Table 5: Total Variance Explained for ET Construct

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**4.227**	46.962	46.962	4.227	46.962	**46.962**
2	**1.173**	13.029	59.990	1.173	13.029	**59.990**
3	.703	7.813	67.803			
4	.633	7.032	74.835			
5	.552	6.129	80.964			
6	.526	5.850	86.814			
7	.457	5.073	91.887			
8	.419	4.654	96.541			
9	.311	3.459	100.000			

Reliability Analysis for Measuring Items Entrepreneurship Traits (ET)

Reliability analysis is a technique used to measure all items under each construct and evaluate the degree to which they are error-free. Cronbach's Alpha is used to measure the reliability of items. However, the acceptance value of Cronbach's Alpha differs among the authors. Kerlinger and Lee (2000) suggest a Cronbach's Alpha of more than 0.50 for valid internal consistency reliability. (Hoque & Awang, 2016a; Sekaran & Roger, 2013) suggest Cronbach's Alpha of 0.60 or higher to measure internal consistency while 0.70 reveals that the instrument possess a high reliability standard (Hoque, Awang, & Siddiqui, 2018). For this research, a Cronbach's Alpha of 0.60 is considered. Table 6 shows there are 6 items of component 1 which is perseverance and 3 items of component 2 which is social and cultural awareness.

Table 6: Reliability Statistics for the four Components of Entrepreneurship Trait

Component	**No of items**	**Cronbach's Alpha**	**Cronbach's Alpha based on standardized item**
Component 1	6	0.845	0.845

Component 2	3	0.737	0.737

The Cronbach's Alpha for each component is computed and possesses a high reliability standard as 0.845 for component 1 and 0.737 for component 2. The results show that all reliability measures for the two dimensions of ET construct has exceeded the required value of 0.6. As a result, the extracted dimensions with respective items are reliable and appropriate to measure the ET construct. Therefore, this study recommended to employ those items for measuring ET constructs in the future researches.

Conclusion

This study contributes to the measurement of ET construct, particularly in the context of entrepreneurship among the engineering students in Malaysia. The EFA results of the study produced a structure extracted two dimensions of ET. The dimensions of ET are perseverance and social and cultural awareness. These dimensions perseverance and social and cultural awareness can be measured by 9 items developed in this study. The reliability measures for the two dimensions of ET construct showed high Cronbach's Alpha value, Bartlett's Test achieved the significance value, KMO is above 0.6, factor loadings exceed the minimum threshold of 0.6. This reflects that the items are applicable in this study. The scale development and validation procedures of the present study have ensured that the new ET instrument is internally consistent and stable across samples.

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TAHAP KESEDIAAN DAN TAHAP KEPERLUAN LATIHAN GURU MENGAPLIKASIKAN KBAT DALAM PDPC SAINS

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Abstract: *Kajian ini bertujuan untuk mengenal pasti sejauh mana tahap kesediaan guru Sains sekolah kebangsaan di Daerah Kuala Pilah mengaplikasikan Kemahiran Berfikir Aras tinggi (KBAT) dalam PDPC serta tahap keperluan latihan berfokuskan KBAT dalam PDPC Sains. Kajian berbentuk kuantitatif menggunakan kaedah tinjauan dengan menggunakan borang soal selidik sebagai instrumen kajian. Kaedah persampelan bertujuan digunakan untuk memilih responden yang terdiri daripada 124 orang guru Sains sekolah Kebangsaan di Daerah Kuala Pilah, Negeri Sembilan. Data dianalisis menggunakan perisian Winstep 3.71.0.1 dengan pendekatan Model Pengukuran Rasch untuk pemerihalan data deskriptif. Nilai Cronbach Alpha yang diperoleh dalam kajian rintis sebanyak 0.95. Dapatan kajian menunjukkan guru Sains mempunyai kesediaan pengetahuan KBAT pada tahap tinggi (min skor = 3.85, min ukuran +0.29). Data ini menunjukkan bahawa guru Sains ini telah mempunyai kesediaan pengetahuan yang tinggi merangkumi pengetahuan asas KBAT, pengetahuan pedagogi KBAT, pembinaan item KBAT dan pentaksiran KBAT untuk diaplikasikan dalam kelas. Analisi juga menunjukkan tahap keperluan latihan guru mengaplikasikan KBAT secara keseluruhannya berada pada tahap tinggi (min skor = 4.21, min ukuran= -0.87). Dapatan ini menyimpulkan bahawa guru Sains telah memiliki kesediaan pengetahuan yang tinggi untuk melaksanakan KBAT dalam PDPC Sains namun mereka juga memerlukan latihan untuk memperkasakan penguasaan sedia ada.*

Kata kunci: *Tahap Kesediaan Guru, Tahap Keperluan Latihan Guru, Kemahiran Berfikir Aras Tinggi, Kbat, Aplikasi KBAT Dalam PDPC Sains.*

Pengenalan

Penglibatan Malaysia dalam TIMSS dan PISA bertujuan mendapatkan maklum balas berkaitan pendidikan Sains dan Matematik kebangsaan bagi meningkatkan mutu pelaksanaan pendidikan sedia ada (KPM 2013). Pencapaian dalam TIMSS dan PISA merupakan indikator keberkesanan pendidikan Sains dan Matematik negara secara global. Pencapaian Malaysia dalam kedua-dua indikator ini dilihat menurun berterusan semenjak 2007 sehingga 2012 (Vadivalu & Kamisah 2015). Punca pencapaian Malaysia sangat lemah dalam PISA 2009 hingga 2012 ialah format soalan teks panjang yang memerlukan murid membuat interpretasi, refleksi serta penilaian berdasarkan kehidupan sebenar berbanding soalan peperiksaan awam Malaysia yang jauh lebih ringkas (Zabani 2012). Pada tahun 2015 pencapaian Sains dan Matematik Malaysia dalam *Organization for Economic Cooperation and Development* (OECD) Malaysia jauh ketinggalan berbanding Singapura, Hong Kong, Korea Selatan, Jepun,

Taiwan,Vietnam, Thailand, Ukraine, Turki dan Kazakhstan (Sinar Harian 2015). Sekaligus memberi isyarat sistem pendidikan Malaysia berada jauh dari landasan pendidikan global (Sinar Harian 2015).

Sehubungan dengan itu, pembudayaan Kemahiran Berfikir Aras Tinggi (KBAT) dilihat berupaya mempertingkatkan keupayaan murid menjalankan operasi pemikiran membuat inferens, menganalisis, mempertingkatkan tahap pemahaman di samping memperbaiki kelemahan diri bagi menjulang prestasi pencapaian mereka selain mengaplikasikan kemahiran, pengetahuan juga nilai secara sistematik dalam kehidupan (Ramli 2013). KBAT melibatkan pemikiran logik, kritikal, reflektif, kreatif serta metakognitif. Dalam konteks murid, KBAT digunakan apabila berdepan masalah bukan rutin, keraguan dan dilema *(National Council of Teachers of Matematics* 2012) & (King *et al.* 2013). KBAT merupakan pembentukan konsep, pemikiran kreatif dan kritis, melakukan sumbang saran, persembahan mental, penyelesaian masalah, penaakulan serta pemikiran yang logik (Kruger 2013). Keupayaan mengaplikasikan pengetahuan, kemahiran serta nilai untuk membuat penaakulan dan juga refleksi bertujuan ke arah membuat keputusan, melakukan inovasi, penyelesaian masalah serta keupayaan menghasilkan ciptaan yang baharu (LPM 2013) & (KPM 2013).

Sungguhpun begitu, pengajaran kemahiran berfikir saintifik masih lagi bermasalah (Rosnani 2003) kerana didapati tahap penguasaan murid masih ditahap sederhana (Abu Hassan & Rohana 2003). Soalan berbentuk penyelesaian masalah dan memerlukan KBAT kebanyakannya tidak dapat diselesaikan murid dan lebih parah lagi didapati soalan berbentuk Kemahiran berfikir.aras rendah (KBAR) juga adakalanya tidak berjaya dijawab oleh murid (Chick & Stacey 2013). Oleh yang demikian, usaha padu perlu dilakukan ke arah menjayakan pembudayaan KBAT dalam kalangan murid peringkat rendah lagi yang mana memerlukan kesediaan guru dalam melaksanakannya. Laporan kajian dikeluarkan Perunding Kestrel Education (UK) bersama 21 Centruy Schools (USA) menyatakan bahawa pemikiran aras tinggi di kalangan guru serta murid di Malaysia masih pada tahap amat rendah (BPK 2012). Namun tahap pengetahuan guru mata pelajaran Sains berkaitan KBAT berada pada tahap yang sederhana (Mohamad Zaidir & Kamisah 2017).

Terdapat guru tidak menguasai kemahiran berfikir (Ghazali 1997) biarpun KBAT telah lama dilaksanakan dalam sistem pendidikan di Malaysia sejak 1994 oleh KPM (Site Hadijah 2015). Masalah dikenal pasti berkaitan ketidaksediaan para guru sendiri dalam mengadaptasikan KBAT berpunca kurangnya ilmu pengetahuan serta kemahiran KBAT guru dalam pengendalian PDPC (Rusnani & Suhailah 2003) dan (Ball & Garton 2005). Kesediaan guru semasa proses PDPC bergantung terhadap pengetahuan kandungan mata pelajaran yang diajar, kemahiran pedagogi serta sikap yang perlu dimiliki dalam melaksanakan kemahiran berfikir terhadap murid (Rajendran 2010). Oleh yang demikian, dalam konteks kajian ini kesediaan pengetahuan merangkumi pengetahuan asas KBAT, pengetahuan pedagogi KBAT, pengetahuan pembinaan item KBAT serta pentaksiran.

Pelaksanaan PDPC berkesan dan pengetahuan guru saling bergantungan (Peter, Burnett & Farwell 2003). Guru berkesan merupakan guru berpengetahuan tinggi (Shulman 2007) merangkumi pengetahuan pedagogi ikhtisas serta setiap isi kandungan subjek diajar (Lilia 2007). Guru berkesan juga perlu memiliki pengetahuan tinggi serta berjaya menguasai silibus pengajaran memandangkan kedua-duanya saling bersandar dengan pencapaian objektif pengajaran (Zandali 2010). Pengetahuan pedagogi ikhtisas membolehkan guru menaakul keseluruhan isi pengajaran dengan kreatif dan kritis (Lilia & Norlena 2000). Guru kurang peka kepada masalah pembelajaran serta gagal mengesan salah faham murid berkaitan konsep

pembelajaran yang mana sekaligus menyebabkan guru gagal mengenal pasti permasalahan yang wujud sepanjang proses PDPC (Hashweh 2005). Kegagalan guru mengenal pasti masalah dalam pengendalian pengajaran menjurus kepada ketidakupayaan guru dalam melaksanakan sesi pengajaran yang baik (Hamidah 2002).

Guru kurang berkeyakinan menggubal item sendiri didorong oleh faktor kurangnya pengetahuan (LPM 2014). Kesannya mendorong guru mengambil langkah mudah lagi cepat dengan menceduk item sedia ada dalam buku rujukan dan latihan di pasaran (Mohd Azhar 2006). Kegagalan guru menguasai pengetahuan pentaksiran merupakan punca kepincangan pemantauan perkembangan prestasi murid menyebab guru tidak berupaya mengesan potensi sebenar murid (Gay & Airasian 2000). Seterusnya menyebabkan terhasilnya laporan pentaksiran prestasi murid yang tidak tepat menyebabkan isu ketidakpercayaan serta keraguan ibu bapa (Plake 1993), (Herman & Golan 1993) dan (Rohaya & Mohd Najib 2008). Seterusnya guru gagal membuat perancangan pengajaran yang baik jika pentaksiran tidak dilaksanakan dengan adil (Stiggins 2001). Kualiti pentaksiran menjadi perdebatan pihak luar akhirnya akan memberi kesan buruk kepada kredibiliti pentaksiran guru terlibat (Mertler 2005). Oleh yang demikian, kajian ini dijalankan untuk mengenal pasti sejauh mana tahap kesediaan guru Sains sekolah kebangsaan di Daerah Kuala Pilah mengaplikasikan KBAT dalam PDPC serta tahap keperluan latihan berfokuskan KBAT dalam PDPC Sains.

Sorotan Kajian

Kesediaan Guru

Guru berkualiti memiliki kesediaan pengetahuan dan kepelbagaian kemahiran menghadapi cabaran dunia pendidikan (Muhammad *et al*. 2007). Kesediaan guru merangkumi kesediaan pengetahuan berkaitan PDPC, pembinaan item pentaksiran dan pentaksiran dalam PDPC agar pembelajaran lancar (Noor Azlan 2010). Pengetahuan pedagogi membolehkan guru menghubungkan sukatan mata pelajaran dengan kaedah pembelajaran berkesan (Hassan & Ismail 2008). Pengetahuan pedagogi merupakan cara guru menterjemahkan pengetahuan isi pengajaran dimiliki semasa berlangsungnya aktiviti di bilik darjah bertujuan mempertingkatkan kefahaman murid (Zaidah 2005). PDPC berkesan terhasil apabila tahap pengetahuan pedagogi guru tinggi (Abdul Shatar 2007) dan (Solis 2009). Pelaksanaan pedagogi berkesan berupaya mempertingkatkan motivasi murid (Brookhart 1999). Guru perlu menguasai pengetahuan pedagogi agar isi kandungan serta kaedah pembelajaran yang ingin disampaikan sesuai dengan keperluan dan pencapaian murid (Halim *et al* 2001). Pengetahuan dan kemahiran pedagogi merupakan aspek penting memastikan kejayaan guru mengaplikasikan KBAT (Brown & McIntyre 1993) dalam (Mok 2006). Kegagalan guru menguasai pengetahuan dan kemahiran pedagogi menghalang berlakunya PDPC yang berkesan (Wiles & Bondi 1998).

Kemahiran dan keupayaan mengaplikasikan pengetahuan menentukan keberkesanan guru Sains itu untuk menyebarluaskan ilmu yang dimilikinya kepada murid (Mohammed 2009). Sehubungan dengan itu, latihan menjadi kaedah untuk menjana guru yang berilmu pengetahuan, berkemahiran serta berkebolehan (Awang 2008). Melalui latihan, guru dapat memantapkan kemahiran, mempertingkatkan ilmu pengetahuan dalam bidang kerja serta sentiasa peka dengan perkembangan terkini (Goetsch 2002). Keperluan latihan merupakan keperluan kepada penambahbaikan prestasi guru (Kroehnert 1999). Latihan dan pengalaman dalam bidang perguruan merupakan syarat utama untuk menaja pengajaran efisyen (Khalid *et al* 2009). Oleh yang demikian, program latihan guru perlu diteliti agar pelaksanaannya ke arah menambahbaik prestasi guru Sains berlangsung dengan jayanya.

Keperluan Latihan

Sekiranya guru berasa tahap keperluan sesuatu latihan itu tinggi maka mereka akan terdorong mengaplikasikan ilmu yang dipelajari di sekolah selepas tamat latihan (Holton 1996). Latihan merupakan usaha berterusan memberi pengetahuan dan juga kefahaman kepada pekerja baharu yakni guru Sains dalam kontek kajian ini yang telah lama berkhidmat berkaitan kemahiran yang mereka perlu kuasai dalam perkembangan pendidikan masa kini (Dessler 2003). Selain itu, latihan adalah usaha sistematik dikendalikan organisasi bertujuan memudahkan penyampaian maklumat demi mempertingkatkan kecekapan pekerjanya menjalankan tugas (Noe 2002) manakala kejayaan sesuatu program latihan dicapai sekiranya peserta latihan berjaya mengamalkan ilmu selepas menghadiri program latihan (Cheng & Ho 2001).

Produktiviti guru dapat ditingkatkan melalui latihan (Muhamad 2003). Latihan adalah proses tersusun yang memberi peluang kepada guru untuk menimba pengetahuan, mempelajari kemahiran baharu berkaitan bidang pengajaran (Blanchard & Thacker 2004). Latihan dijalankan kepada kumpulan sasaran tanpa mengira tempoh perkhidmatan (Desser 2003). Latihan menjurus kepada pembangunan sumber manusia merangkumi golongan guru (Shaharudin & Abidin 2009). Program latihan dilihat wadah untuk memastikan sekolah mempunyai aset berpengetahuan, berkeupayaan serta bersedia dengan kemahiran tinggi supaya dapat meningkatkan prestasi kerja (Ibrahim 2006). Guru perlu menghadiri latihan untuk menambah pengetahuan dan kefahaman dari segi penyediaan bahan bantu mengajar Sains, pembinaan item KBAT, kandungan kurikulum Sains, pentaksiran (Mustafa & Osman 2011). Sebagai initiatif, KPM memperkasakan latihan guru untuk menyediakan guru Sains berkredibiliti melaksanakan pedagogi Sains berkesan, pembinaan item mempunyai nilai kesahan dan kebolehpercayaan terhadap standard kurikulum yang digazetkan serta pengagihan markah yang tepat mengikut piawaian telah ditentukan (KPM 2013). Melalui kursus, seminar, bengkel, forum serta persidangan yang melibatkan pendidikan, pertambahan pengetahuan guru akan berlaku sekiranya guru bersedia dan bermotivasi menghadiri program yang dianjurkan (Hussin 2004).

Sungguhpun terdapat kejayaan yang dicapai seperti peningkatan pencapaian TIMMS dan PISA 2015 (Sinarharian 2015), namun terdapat juga dapatan menunjukan guru tidak jelas berkaitan pembudayaan KBAT dalam PDPC walaupun pendedahan secara formal diberikan (Sharifah *et al* 2012). Sebagai langkah mengatasinya, satu kaedah berbentuk amali perlu dilaksanakan daripada teori yang dipelajari berkaitan pengetahuan asas penerapan KBAT, membina item KBAT termasuk juga pentaksiran dipelajari. PLC iaitu *Professional Learning Community* dilancarkan pada 2011 (KPM 2013). Antara strategi pelaksanaan PLC adalah melalui Pembimbing Rakan Sebaya (PRS), Sesi Perkongsian, Jejak Pembelajaran serta Ulangkaji Pengajaran (Eaker &Many 2006). Perkongsian ilmu melalui pendekatan PRS berupaya meningkatkan profesionalisme guru (Huston & Weaver 2008). Selain itu melalui program SISC+ memberi bimbingan berkaitan kemahiran dan alternatif penyelesaian isu yang timbul berkaitan PDPC (Denton & Hasbrouk 2009).

Latihan Dalam Perkhidmatan (LDP) adalah proses memperoleh kemahiran, konsep baharu, peraturan seta sikap sistematik yang dapat menambahbaik prestasi kerja individu (Tight 2000). LDP merupakan latihan penambahbaikan yang membekalkan latihan tambahan bagi individu bekerja kerana terdapat transformasi bidang kerjanya sama ada melibatkan teknologi mahupun organisasi kerjanya yang bertambah kompleks (Grubb & Ryan 1999). Sehubungan dengan itu, LDP menjadi batu loncatan sebagai wadah penyebaran pengetahuan

terkini kepada guru. Sebagai langkah memudahkan guru melakukan pembelajaran kendiri, pihak LPM (2013) telah mewujudkan buku pentaksiran KBAT secara digital yang membolehkan para guru mengakses dari laman sesawang. Seiring dengan perkembangan teknologi masa kini, pihak Bahagian Teknologi Pendidikan (BTP) telah menghasilkan video panduan pengajaran mengaplikasikan KBAT dalam PDPC. Sungguhpun begitu, penghasilan video dan buku digital ini masih dianggap belum mencukupi untuk dijadikan panduan para guru ke arah pelaksanaan KBAT dalam PDPC.

Program latihan dilaksanakan ke arah peningkatan profesionalisme seharusnya selari dengan keperluan kumpulan sasaran selaku peserta supaya lebih efektif (Byron 2000). Keperluan program latihan itu sebagai suatu keperluan dan cara ke arah penambahbaikan prestasi kerja individu yang mana ia boleh dilakukan melalui satu atau pelbagai bentuk latihan (Kroehnert 1995). Menurut Swist (1997), keperluan latihan sebenarnya merujuk kepada apa yang perlu dan bagaimana ia sepatutnya dilaksanakan.

Metodologi

Kajian yang dijalankan berbentuk kuantitatif menggunakan kaedah tinjauan. Populasi kajian seramai 673 orang guru Sains sekolah rendah di Negeri Sembilan (JPNNS 2017). Pencapaian Sains UPSR Negeri Sembilan adalah dalam kalangan lima negeri terbaik di Malaysia (JPNNS 2017). Kaedah persampelan bertujuan iaitu pengkaji memilih 124 daripada keseluruhan 673 orang guru Sains di Negeri Sembilan kerana ianya bertepatan dengan pengetahuan dan tujuan khusus pengkaji (Noraini 2013).

Soal selidik digunakan sebagai instrumen utama bagi menjawab persoalan kajian. Penggunaan soal selidik didapati paling berkesan dalam prosedur fasa pengumpulan data memandangkan ia tidak mengambil masa yang lama untuk dijalani, malah ia juga melibatkan kos yang rendah serta memberikan keputusan yang tepat dan dipercayai (Sekaran 2003). 61 item soal selidik diadaptasi daripada instrumen kajian Zarina (2016) kesediaan KBAT guru Teknik dan Vokasional. Soal selidik mengandungi daripada tiga bahagian iaitu demografi responden, kesediaan pengetahuan KBAT dan keperluan latihan berfokuskan KBAT yang telah diubah suai mengikut keperluan kajian ini.

Maklumat demografi responden berkaitan jantina, pengalaman mengajar Sains dan pengalaman mengikuti latihan berkaitan elemen KBAT dalam PDPC Sains. Bahagian kedua iaitu kesediaan pengetahuan adalah berkaitan Pengetahuan asas KBAT, pengetahuan aspek pedagogi berunsurkan KBAT, pengetahuan aspek pembinaan item KBAT, pengetahuan aspek pentaksiran. Bahagian keperluan latihan berfokuskan aplikasi KBAT dalam PDPC Sains pula merangkumi latihan pedagogi, membina item KBAT serta latihan berkaitan pentaksiran. Pemilihan jawapan soal selidik kesediaan pengetahuan responden berkaitan KBAT bersandarkan skala 1- tidak mahir hingga skala 5- sangat mahir. Seterusnya jawapan bahagian keperluan latihan adalah berdasarkan skala 1- sangat tidak setuju (STS) hingga skala 5- sangat setuju (SS). Pemilihan skala bertepatan dengan dimensi yang diukur pengkaji serta maklum balas bersifat homogen untuk mendiskriminasi kategori bagi setiap skala (Asun et al. 2015).

Kajian rintis dijalankan bertujuan mengenal pasti kesesuaian instrumen digunakan.30 orang guru Sains sekolah kebangsaan yang tidak terlibat dengan kajian sebenar dipilih menjawab instrumen kajian. Bilangan responden antara 25 hingga 100 orang adalah sesuai bagi menjalankan kajian rintis (Cooper & Schindler 2011). Memandangkan instrumen diadaptasi dari Zarina (2016) maka tiada keperluan kesahan kandungan dilakukan kerana pengesahan telah dilakukan pakar dalam kajian terdahulu. Justifikasi kajian ini dilaksanakan bertepatan dengan cadangan kajian lanjutan oleh Zarina (2016) agar kajian di jalankan dengan

mengkhususkan kajian kepada mata pelajaran selain bidang Teknik dan Vokasional. Kajian juga dicadangkan diperluaskan terhadap responden di luar Negeri Johor (Zarina 2016).

Pengkaji menggunakan program perisian Winstep 3.71.0.1 untuk menentukan kesahan kriteria dan bahagian dengan pendekatan Model Pengukuran Rasch kerana model ini membolehkan kesahan instrumen ditentukan berpandukan analisis utama iaitu polariti item, peta item-individu, pengasingan item-individu, ketidaksepadanan item-individu, unidimensi, kesepadanan item-individu serta skala pemeringkatan (Ariffin 2008). Sungguhpun begitu, bagi kesahan instrumen soal selidik, hanya analisis kebolehpercayaan individu, kebolehpercayaan item, polariti item, penentuan nilai C*ronbach Alpha* dan juga kesesuaian item dilakukan. Nilai *Cronbach Alpha* yang diperoleh pengkaji melalui analisis yang dilakukan terhadap kajian rintis sebanyak 0.95. Kebolehpercayaan alat merujuk ketekalan alat ukuran bagi mengukur pembolehubah (Othman 2013) dengan nilai *Cronbach Alpha yang* melebihi 0.70 menunjukkan item memiliki kestabilan dan ketekalan tahap baik (Bon & Fox 2007). Oleh yang demikian, nilai ini telah membuktikan instrumen digunakan berada dalam keadaan sangat baik di mana memiliki tahap kebolepercayaan yang tinggi serta sesuai digunakan untuk kajian sebenar.

Nilai indeks pengasingan Model Rasch terbahagi kepada dua iaitu indeks pengasingan item dan individu di mana indeks pengasingan item merujuk bilangan strata kebolehan kumpulan sampel dan indek pengasingan individu bertujuan menganggarkan kebolehan instrumen mengelaskan individu kepada beberapa tahap berdasarkan bahagian yang diukur yang mana item diterima dengan baik sekiranya nilai kebolehpercayaan adalah melebihi 0.8 (Bon & Fox 2007). Nilai indeks pengasingan lebih daripada nilai 2 adalah baik dan diterima kerana nilai ini memberi gambaran bahawa item dalam instrumen ini memiliki keupayaan dalam membezakan responden kepada dua tahap kebolehan (Linacre 2006). Analisis yang dijalankan daripada kajian rintis memberi nilai kebolehpercayaan item 0.87 yang mana nilai ini memberi gambaran bahawa item dalam soal selidik ini memiliki nilai kebolehpercayaan item di tahap baik juga boleh diterima (Bon & Fox 2007). Bagi indeks pengasingan item pula adalah 2.17 menunjukkan item tersebut adalah baik dan boleh digunakan kerana lebih daripada 2.0 (Linacre 2006). Seterusnya indeks kebolehpercayaan individu bagi ujian rintis yang diperolehi menunjukkan nilai 0.94 dan boleh disimpulkan berada tahap terbaik kerana semakin menghampiri nilai 1.0, semakin tinggi tahap kebolehpercayaannya (Sekaran 2003). Manakala indeks pengasingan diperolehi adalah sebanyak 4.18 yang menggambarkan terdapat dua tahap kebolehan guru Sains yang dapat dibezakan dalam analisis iaitu nilai melebihi 2.0 maka kebolehpercayaan sampel adalah tinggi (Linacre 2006).

Polariti item bertujuan menentukan item digunakan berupaya mengukur kosntruk serta melihat hubungan antara item dan responden kajian (Bon & Fox 2007) di mana sekiranya indeks item diperolehi bernilai positif maka ia adalah selari untuk mengukur bahagian manakala sekiranya dapatan adalah bernilai negatif, maka item perlu disemak semula kerana berlaku kemungkinan terdapat item atau responden yang memberi respond yang tidak selari dengan pemboleh ubah yang diukur (Linacre 2003). Namun begitu, hasil analisis menunjukkan semua item memberikan nilai indeks positif biar pun terdapat 1 item yang menghampiri sifar iaitu 0.04 namun masih diteruskan kerana masih dalam julat nilai positif indeks. Biarpun item tunggal terendah itu dikekalkan, namun tetap diberi penelitian kerana terdapat kemungkinan responden mengalami kesulitan untuk menjawabnya (Azman 2011).

Analisis tahap kesediaan pengetahuan dan keperluan latihan berfokuskan aplikasi KBAT guru Sains ini adalah melibatkan min skor dan min ukuran iaitu nilai logit. Min skor diinterpretasikan berdasarkan skala 1.00-2.20 rendah/tidak memuaskan, 2.41-3.80

sederhana/kurang memuaskan dan 3.81-5.00 tinggi/memuaskan (Mohammad Najib 2003). Bagi nilai logit yang merujuk kepada aras persetujuan responden terhadap item pula adalah nilai logit positif sekiranya responden mudah bersetuju dengan item manakala nilai logit negatif adalah sebaliknya (Bon & Fox 2007).

Dapatan dan Perbincangan

Tahap Kesediaan Pengetahuan

Tahap kesediaan pengetahuan guru mengaplikasikan KBAT dalam PDPC Sains diukur berdasarkan empat subkonstruk iaitu pengetahuan asas KBAT, pengetahuan pedagogi berunsurkan KBAT, pengetahuan aspek pembinaan item, serta pengetahuan aspek pentaksiran. Analisis min skor dan min ukuran bagi setiap subkonstruk dipaparkan dalam Jadual 3. Secara keseluruhannya, analisis menunjukkan guru Sains mempunyai kesediaan pengetahuan KBAT pada tahap tinggi (min skor = 3.85, min ukuran +0.29). Data ini menunjukkan bahawa guru Sains ini telah mempunyai kesediaan pengetahuan yang tinggi merangkumi pengetahuan asas KBAT, pengetahuan pedagogi KBAT, pembinaan item KBAT dan pentaksiran KBAT untuk diaplikasikan dalam kelas. Subkonstruk pengetahuan pembinaan item KBAT menunjukkan skor min tertinggi (min skor = 3.78 , min ukuran = +0.02) memberi interpretasi tahap tinggi. Data ini memberi petunjuk bahawa guru Sains memiliki keupayaan untuk membina item berunsurkan KBAT untuk diaplikasi sepanjang PDPC. Subkonstruk pengetahuan asas KBAT tinggi (min skor = 3.93, min ukuran = +0.24). Data ini membuktikan bahawa guru Sains di Daerah Kuala Pilah ini telah memiliki pengetahuan asas mengenai KBAT dan bersedia mengaplikasikannya dalam PDPC. Subkonstruk pengetahuan pedagogi Sains berunsurkan KBAT juga tahap tinggi (min skor = 3.86, min ukuran = +0.36). Data ini menjelaskan guru Sains telah menguasai dan berupaya merangka serta melaksanakan PDPC Sains berunsurkan KBAT. Seterusnya subkonstruk pengetahuan pentaksiran (min skor = 3.84, min ukuran = +0.53). Didapati bahawa subkonstruk pengetahuan pembinaan item Sains KBAT mencapai aras persetujuan tertinggi berdasarkan nilai min ukuran +0.02 yang mendekati nilai 0. Hal ini membuktikan bahawa guru Sains ini berpengetahuan tinggi dalam pembinaan item KBAT.

Jadual 2: Tahap kesediaan pengetahuan guru.

Subkonstruk pengetahuan	Min skor	Min ukuran	Tahap
Pengetahuan asas KBAT	3.93	+0.24	Tinggi
Pengetahuan pedagogi Sains berunsurkan KBAT	3.86	+0.36	Tinggi
Pengetahuan pembinaan item elemen KBAT	3.78	+0.02	Tinggi
Pengetahuan pentaksiran	3.84	+0.53	Tinggi
Bahagian kesediaan pengetahuan	3.85	+0.29	Tinggi

Analisis subkonstruk secara keseluruhan menunjukkan kesediaan pengetahuan guru Sains mengaplikasikan KBAT dalam PDPC Sains berada pada tahap tinggi. KBAT merupakan alat menjana peningkatan prestasi pencapaian serta memperbaiki kelemahan diri murid semasa PDPC (Ramli & Tarmizi 2013). Guru yang kompeten dan konsisten menggabungjalinkan strategi KBAT bersama kandungan pelajaran berupaya membuka peluang kepada murid memperkembangkan keupayaan pemikiran kritis dan pemikiran aras

tinggi mereka (Miri 2007). Dapatan kajian menyokong kajian yang dijalankan Siding (2000) guru yang memiliki tahap kesediaan pengetahuan tinggi berupaya menjalankan taggungjawab dengan baik serta menyumbang kepada kejayaan pencapaian objektif PDPC. Dapatan kajian ini menyokong kajian Wahab (2006) guru yang memiliki pengetahuan tinggi serta mahir pedagogi berjaya menarik minat murid belajar serta memastikan anak didiknya berjaya memperolehi pengetahuan berkaitan topik PDPC. Dapatan kajian juga selari dengan Zandali (2010) guru mesti berpengetahuan tinggi serta berjaya menguasai silibus pengajaran untuk mencapai objektif PDPC. Namun begitu, dapatan kajian ini berbeza dengan dapatan Zamri dan Jamaludin (2002) mengenai pelaksanaan KBAT dalam PDPC yang melaporkan bahawa guru tidak mahir serta kurang pengetahuan mengaplikasikan KBAT di sekolah.

Terdapat guru yang mengambil initiatif menggunakan perkembangan teknologi semasa berkongsi idea dan bahan berkaitan PDPC serta pentaksiran Sains dalam laman sosial seperti facebook, kumpulan di *Whats app* mahupun telegram (Othman 2015). Dapatan kajian selari dengan Airasian (2000) yang menyatakan dalam kajiannya guru memiliki tahap kesediaan pengetahuan pentaksiran tahap tinggi. Guru cakna hasil pentaksiranmembolehkan guru mengenalpasti potensi sebenar murid sekaligus guru berupaya melakukan perancangan lebih baik (Brookhart 1999). Justeru, dengan pengetahuan asas KBAT, pedagogi, pembinaan item serta pentaksiran mendorong kepada kesediaan guru Sains untuk merancang mengaplikasikan elemen KBAT dalam PDPC Sains. Seterusnya guru berupaya membina item mempunyai elemen KBAT pada masa yang sama mampu mencabar dan mempertingkatkan keupayaan mental murid. Perkara ini seterusnya diharapkan dapat menjayakan aplikasi KBAT dalam PDPC guru -guru Sains ini dari masa ke semasa agar harapan KPM agar murid mencapai potensi pemikiran masing-masing melalui KBAT terlaksana (KPM 2013).

Tahap Keperluan Latihan Guru

Skor min menunjukkan tahap keperluan latihan guru mengaplikasikan KBAT secara keseluruhannya berada pada tahap tinggi serta didapati guru bersetuju dengan bahagian latihan yang dikemukakan (min skor = 4.21, min ukuran= -0.87). Subkonstruk keperluan latihan pembinaan item KBAT memperolehi skor min tertinggi (min skor = 4.25, min ukuran = -1.03). Manakala keperluan latihan pedagogi (min skor = 4.23, min ukuran = -1.01). Bagi subkonstruk latihan pentaksiran (min skor 4.15, min ukuran = -0.56).

Jadual 3: Dapatan analisis subkonstruk tahap keperluan latihan.

Subkonstruk	Min skor	Min Ukuran	Tahap
Keperluan latihan pembinaan item KBAT	4.25	-1.03	Tinggi
Keperluan latihan pedagogi	4.23	-1.01	Tinggi
Keperluan latihan pentaksiran	4.15	-0.56	Tinggi
Bahagian keperluan latihan	**4.21**	**-0.87**	**Tinggi**

Sungguhpun tahap pengetahuan guru tinggi mengaplikasikan KBAT dalam PDPC tetapi dapatan kajian juga menunjukkan guru masih memerlukan latihan untuk mempertingkatkan penguasaaan sedia ada mereka. Kemahiran yang dipelajari serta keupayaan untuk mengaplikasikan pengetahuan menentukan keberkesanannya seorang guru Sains itu untuk menyebarluaskan ilmu yang dimilikinya kepada murid (Mohammed 2009).

Dapatan kajian ini menyokong kajian Holton (1996) sekiranya guru berasa tahap keperluan sesuatu latihan itu tinggi maka mereka akan terdorong untuk mengaplikasikan ilmu yang dipelajari di sekolah selepas tamat latihan. Hal ini terbukti dalam kajian Jaafar & Samuri (2013) guru di Malaysia sentiasa berusaha menyediakan ruang dan peluang yang optimum untuk memperkembangkan tahap intelek murid melalui pedagogi PDPC berkesan. Dapatan kajian juga sealiran dengan Rahman & Jaffar (2008) dan Suah, Ong & Osman (2010) bahawa pengetahuan dan kefahaman berkaitan tugas bertambah apabila menjalani latihan serta memperoleh pengetahuan terkini dunia pendidikan apabila guru menghadiri kursus dan Latihan Dalam Perkhidmatan (LDP) anjuran sekolah, PPD, JPN mahupun KPM .

Berlaku pertambahan pengetahuan guru apabila diberi pendedahan berkaitan pengetahuan dengan cara menghadiri kursus, seminar, bengkel, forum atau persidangan yang melibatkan pendidikan (Hussin 2004). Misalnya guru Sains boleh diberikan latihan berkenaan penggunaan peta minda untuk membantu merangsang murid meningatkan daya pemikiran dan percambahan idea mereka berkaitan topik pembelajaran kerana penggunaan peta minda ketika PDPC telah dikenal pasti berjaya meningkatkan tahap kemahiran berfikir aras tinggi murid (Laura 2011). Peta pemikiran telah berjaya menjadi wadah yang sangat berguna untuk meningkatkan pencapaian murid ketika belajar (Morgan-Janes 2009). Tuntasnya di sini, wajarlah sekiranya guru Sains didedahkan dengan pengetahuan dan kemahiran menggunakan peta pemikiran kepada murid sebagai salah satu cara membantu mempertingkatkan daya mental murid tahap tinggi.

Dapatan kajian bahagian tahap keperluan latihan yang tinggi ini menyokong kajian (Awang 2008) yang mendapati latihan menjadi kaedah menjana pekerja berilmu pengetahuan, berkemahiran serta berkebolehan di tempat kerja. Tahap keperluan latihan tinggi dalam pembinaan item, pedagogi serta pentaksiran berasaskan KBAT selari dengan (Kroehnert 1999) keperluan latihan merupakan keperluan kepada penambahbaikan prestasi individu selaku pekerja. Dalam usaha menambahbaik prestasi guru Sains dalam PDPC, adalah wajar program latihan guru Sains dirangka serapi mungkin agar berlaku penyebaran ilmu pengetahuan dengan berkesan. Oleh yang demikian pembangunan profesionalisme guru sains sedia ada memerlukan penambahbaikan secara holistik untuk membuka ruang dan peluang ke arah pendidikan berkualiti, pembelajarans sepanjang hayat demi memperkasakan keupayaan, komitmen serta mentransformasi sikap guru selari dengan hasrat peningkatan pencapaian murid (Muzirah & Norhana 2013). Dapatan kajian ini tahap keperluan yang tinggi menyokong kajian (Dessler 2003) bahawa latihan merupakan satu usaha yang berterusan untuk memberi pengetahuan dan juga kefahaman kepada pekerja baharu yakni guru Sains dalam kontek kajian ini yang telah lama berkhidmat berkaitan kemahiran yang mereka perlu kuasai dalam

Kajian membawa implikasi terhadap keperluan latihan para guru. Penganjuran latihan dan kursus kelak diharapkan dapat mengatasi masalah amalan guru menceduk item terus dari buku di pasaran (Othman 2015) dan isi kualiti pentaksiran yang diragui (Mertler 2005). Selain itu juga latihan dilihat menjadi satu mekanisme sebagai solusi kepada permasalan yang dikemukakan dalam kajian Salih (2011) guru tidak memahami kaedah menggabungjalinkan KBAT dengan topik pengajaran serta aplikasi KBAT berlangsung pada kadar minima sahaja dalam PDPC mereka.

Kesimpulan

Secara keseluruhannya guru Sains sekolah kebangsaan di Daerah Kuala Pilah Negeri Sembilan sebenarnya telah memiliki tahap kesediaan pengetahuan yang tinggi namun tahap

keperluan latihan yang tinggi juga pada masa yang sama. Tuntasnya memberi gambaran elemen KBAT sudah mula diterima dan sebati oleh para guru Sains ini. Sistem pendidikan terbilang bermula dari PDPC yang cemerlang. Sehubungan itu, pihak PPD, JPN serta KPM perlulah bekerjasama dengan LPM untuk memperkasakan lagi pendedahan ke arah pelaksanaan KBAT dengan lebih luas kepada guru Sains seluruh pelosok negara. Penganjuran kursus serta latihan berkesan ke arah memperkasakan keupayaan serta kepakaran guru Sains menggabungjalinkan KBAT dalam PDPC. Ke arah menjadi guru berkualiti, seorang guru itu mestilah berusaha melengkapkan dirinya dengan pengetahuan yang luas serta memiliki kepelbagaian kemahiran merangkumi asas KBAT, pedagogi, pembinaan item serta pentaksiran ke arah menghadapi cabaran dalam dunia pendidikan mutahir ini (Muhammad *et al.* 2007). Kajian ini hanyalah berbentuk tinjauan serta melibatkan guru Sains sekolah kebangsaan di Daerah Kuala Pilah, Negeri Sembilan sahaja. Kajian lanjutan boleh dijalankan dengan lebih mendalam bagi memperoleh maklumat berguna sebagai tujuan penambabhbaikan kajian dari masa ke semasa.

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KEPENTINGAN AMALAN PENGAJARAN DAN PEMBELAJARAN ABAD 21 TERHADAP PEMBANGUNAN PELAJAR

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Abstract: *Kajian ini bertujuan untuk meninjau persepsi guru terhadap kepentingan amalan pengajaran dan pembelajaran abad 21 dalam sesi PdP mereka bagi tujuan pembangunan pelajar. Reka bentuk kajian berbentuk kuantitatif secara tinjauan yang menggunakan soal selidik sebagai instrumen untuk mengumpul data di lapangan. Instrumen kajian diadaptasi dan diubahsuai dari model Partnership for 21st Century Skills mengikut keperluan kajian. Soal selidik mengandungi lapan dimensi amalan pengajaran dan pembelajaran abad ke 21. Pemilihan sampel kajian menggunakan persampelan secara rawak. Sampel kajian terdiri daripada 242 orang guru daripada 34 buah sekolah di daerah Kinta Utara, Perak. Berdasarkan dapatan kajian, tiga kemahiran amalan pengajaran dan pembelajaran abad 21 guru di daerah Hulu Kinta yang tertinggi adalah dimensi kemahiran penyelesaian masalah, kemahiran komunikasi dan kemahiran pemikiran kritikal. Manakala dimensi amalan pengajaran dan pembelajaran abad 21 yang terendah adalah adalah dimensi kemahiran kolaborasi. Dapatan menunjukkan bahawa amalan pengajaran dan pembelajaran abad 21 mendorong emosi pelajar dalam melaksanakan aktiviti pembelajaran dimana berada pada tahap min yang tinggi. Hasil kajian membuktikan amalan pengajaran dan pembelajaran abad 21 memberi impak yang positif kepada pembangunan pelajar.*

.

Keywords: *Amalan Pengajaran Pembelajan Abad 21, Guru, Kemahiran*

Pengenalan

Sistem pendidikan hari ini mengalami inovasi dan transformasi secara holistik yang melibatkan perubahan kepada sistem pendidikan, kualiti kepimpinan sekolah, kualiti guru, kemenjadian murid, serta pemantapan tadbir urus yang lebih efisien (Sharifah Bee, 2015) Setiap warga pendidik perlu melakukan anjakan pradigma dan memperkemaskan keterampilan serta ilmu pengetahuan untuk menghadapi transformasi pendidikan abad ini. Penandaarasan mutu pendidikan negara bergantung kepada transformasi yang mempunyai pertautan dengan ilmu pengetahuan dan ledakan maklumat. Oleh itu, tranformasi pendidikan

merupakan suatu kemestian kerana kejayaan transformasi ekonomi amat bergantung pada kejayaan pelan pendidikan yang bersifat futuristik (Abdul Ghoni, 2018).

Sejajar dengan perubahan ini, Malaysia berhasrat mendapat kedudukan terbaik dalam *Trends in International Mathematics and Science Study* (TIMSS) dan *Programme for International Student Assesment* (PISA) menjelang 2025 (Utusan online 25 November, 2016). Oleh itu, selaras dengan pelaksanaan transformasi pendidikan, keutamaan sekolah terarah kepada pengeluaran pendidikan berkualiti. Bagi menjana modal insan yang cemerlang dan holistik, kualiti guru menjadi unsur yang penting untuk dikaji. Dengan ini, Kementerian Pendidikan Malaysia melalui Pelan Pembangunan Pendidikan Malaysia (PPPM) 2013 – 2025 telah meluaskan pelaksanaan pembelajaran abad ke 21 keseluruh negara pada tahun 2015. (KPM, 2013).

Gelombang ke 2 (2016-2020) dalam PPPM yang menumpu untuk memacu peningkatan sistem pendidikan merupakan transformasi sistem pendidikan kedua diperlukan untuk merelisasikan hasrat dan aspirasi negara. Transformasi ini berasaskan objektif yang berani dan jelas serta dapat mencerminkan keperluan negara bagi melahirkan individu berbakat di samping mempertimbangkan keunikan dan kekuatan Malaysia seperti yang digariskan dalam Rancangan Malaysia Ke-11. Merujuk (surat pekeliling ikhtisas KPM 2 November 2016), Pelan pembangunan Pendidikan Malaysia (PPPM_2013-2025) menyarankan kurikulum perlu memberi pernekanan kepada penguasaan kemahiran abad 21 seperti kreatif dan inovatif, penyelesaian masalah, pemikiran kritis, dan komunikasi untuk membolehkan pelajar bersaing di peringkat global.

Di peringkat sekolah, memerlukan guru yang mempunyai amalan pengajaran dan pembelajaran abad- 21 yang tinggi bagi membangunkan modal insan yang berkualiti. Justeru itu, menerusi amalan pengajaran dan pembelajaran abad 21 para guru yang mempunyai kemahiran pedagogi abad 21 iaitu berbantukan ICT dan kepelbagaian dalam metodologi penyampaian ilmu adalah penting (Sharifah Bee, 2015). Selain itu, kualiti guru juga harus dipertingkatkan di mana para guru harus mengamalkan aspirasi belajar sepanjang hayat (Koehler & Mishtra, 2005). Aspirasi ini seiring dengan era globalisasi yang menggambarkan sesebuah komuniti itu bukan berdasarkan kepada saiznya tetapi kepada asas ilmu pengetahuannya. (Du Four & Eaker, 1998). Mohammed Sani (2005), menekankan bahawa peranan sekolah telah berubah, dan guru perlu meningkatkan kompetensi, terutamanya domain pengetahuan dan kecekapan baharu bagi membolehkan mereka mengikut peredaran zaman.

Amalan Pengajaran dan Pembelajaran Abad 21

Berdasarkan Pelan Pembangunan Pendidikan Malaysia (PPPM 2013- 2025), merujuk kepada anjakan pertama iaitu menyediakan kesamarataan akses kepada pendidikan berkualiti bertaraf antarabangsa merupakan salah satu faktor utama dalam mencapai Misi Nasional dan guru merupakan tonggak kepada kejayaan ini. Justeru, guru perlu mempunyai iltizam yang tinggi dan bersedia menerima cabaran dalam melaksanakan inisiatif dan pendekatan baharu demi peningkatan kualiti pendidikan. Seterusnya, profesional keguruan dimartabatkan dengan memberikan penumpuan terhadap program dan aktiviti PdP. Antara inisiatif dan perancangan yang rapi yang boleh dijalankan oleh guru adalah melaksanakan pengajaran dan pembelajaran abad ke 21 di dalam pengajaran mereka.

Persediaan pembelajaran yang menjurus ke arah Kemahiran Berfikir Aras Tinggi (KBAT) dan pengurusan bilik darjah yang lebih dinamik merupakan cabaran pendidikan abad ke-21 (Susanne, 2014). Oleh itu, guru dan KPM perlu memastikan sistem pendidikan negara

mampu mendidik pelajar secara holistik dan berkesan bagi mencapai maklamat melahirkan modal insan berpengetahuan, berintegriti, berfikir secara kreatif, inovatif dan berupaya berkolaborasi bagi memenuhi keperluan industri 4.0 dalam era digital abad 21 (Abdul Ghoni, 2018). Kemahiran berkolaborasi diberi keutamaan untuk membina jaringan belajar tanpa sempadan dengan individu lain bagi meningkatkan kualiti pengajaran dan pembelajaran (Abu Bakar, 2013). KPM menegaskan bahawa pelajar perlu mempunyai enam aspirasi utama iaitu pengetahuan, kemahiran berfikir, kemahiran kepimpinan, profisiensi dwi-bahasa, etika dan kerohanian dan identiti nasional bagi memenuhi keperluan kemahiran abad 21 menjelang tahun 2025.

Terdapat lapan komponen keberhasilan guru dan sistem sokongan abad 21 iaitu kemahiran pemikiran kritikal, kemahiran komunikasi, refleksi, kemahiran kolaborasi, pentaksiran, penyelesaian masalah, teknologi, kreativiti dan kemahiran inovasi yang dinyatakan menerusi *Model Partnership for 21st Century Skill*s (2015). Model atau rangka kerja bagi abad 21 telah dirangka *oleh Partnership for 21st Century Skills (p21.org)* (2015) sebagai rujukan untuk membantu para pendidik mengintegrasikan kemahiran dalam pengajaran dan pembelajaran abad 21. Pembelajaran abad ke 21 menekankan kepada 4Ks-kreativiti, kolaborasi, pemikiran kritikal dan komunikasi. Dalam bahasa mudah pengajaran dan pembelajaran abad 21 boleh didefinisikan sebagai *"memerlukan pelajar menguasai isi kandungan semasa proses pengeluaran maklumat, mensistesiskan dan pentaksiran maklumat secara meluas berpandukan mata pelajaran dan sumber dengan mengetahui dan menghormati budaya yang pelbagai"*(Barnet, 2011; Abdul Ghani, 2018). Berdasarkan definisi tersebut jelas menunjuk tahap pemikiran aras tinggi diberi penekanan dalam pengajaran abad 21.

Hal ini jelas menunjukkan bahawa kemahiran dalam kolaborasi, kreativiti, inovasi serta berfikiran kritikal akan bertambah penting dalam perancangan dan pelaksananan sistem pendidikan, dan kurikulum secara khusus (Abu Bakar, 2013). Kemahiran pemikiran kritikal merupakan kemahiran yang sangat penting dalam semua profesion terutamanya dalam profesion perguruan. Aspek kemahiran pemikiran kritikal menyumbang kepada pembangunan pelajar bagi membuat pertimbangan dan keputusan dengan berkesan seperti membuat penilaian keterangan, menganalisis serta menggambarkan hujah-hujah secara kritikal semasa proses pembelajaran.

Dalam proses pengajaran dan pembelajaran abad 21, kemahiran berfikir kritis sangat penting bagi memahami dan menaakul sesuatu perkara yang diajar oleh guru. Selain itu, individu dapat menggunakan pelbagai teknik penciptaan idea, membangun, melaksana dan berkomunikasi dengan idea-idea baru kepada orang lain secara berkesan dengan aspek kemahiran pemikiran kreatif (Ahmad, 2017). Aspek kemahiran komunikasi dan kolaborasi juga penting bagi individu dalam pengajaran dan pembelajaran abad 21. Sesi PdP di dalam bilik darjah seharusnya lebih bersifat interaktif atau dua hala dengan turut melibatkan murid secara aktif agar mereka lebih mudah mengikuti dan memahami pelajaran yang disampaikan seperti aktiviti kerja berkumpulan. Pada masa yang sama, guru harus berani mengaplikasikan teknologi maklumat dan komunikasi (TMK dan ICT) untuk menampung keperluan kepelbagaian kaedah pembelajaran abad 21. Proses pengajaran dan pembelajaran abad 21, dapat membantu murid mencerap sesuatu maklumat kemudian diproses dalam minda dan berupaya dikeluarkan semula. Disinilah lahirnya murid yang produktif, global dan berdaya saing (Ahmad 2017).

Koehler & Misthra (2005) menggariskan bahawa pengetahuan dalam pengajaran dan pembelajaran adalah pengetahuan yang mendalam mengenai proses dan amalan atau kaedah

pengajaran dan pembelajaran dan bagaimana ia merangkumi keseluruhan tujuan pendidikan dan matlamat pembelajaran. Ini merupakan satu bentuk ilmu generik yang terlibat dalam semua isu-isu pembelajaran murid yang merangkumi pengurusan bilik darjah, rancangan pembangunan pengajaran, pelaksanaannya serta penilaian murid. Ini termasuk pengetahuan mengenai teknik atau kaedah yang akan digunakan di dalam bilik darjah; sifat kumpulan sasaran dan strategi untuk menilai pemahaman murid (Fulton & Brtton, 2011). Pengajaran adalah suatu proses yang melibatkan penyebaran ilmu pengetahuan yang meliputi perancangan, pengelolaan, penyampaiaan, bimbingan dan penilaian (Ahmad et al., 2013). Secara ringkasnya, pengajaran merupakan aktiviti yang berkaitan dengan perkembangan idea-idea serta memudah cara pembinaan ilmu, menentukan standard dan mencungkil bakat kreativiti murid serta menggalakkan murid untuk belajar untuk memaksimumkan pencapaian yang cemerlang (Dembo & Seli, 2012). Guru perlu melengkapkan diri dengan pelbagai teknik pengajaran, menguasai teknik kemahiran membuat perancangan agar guru dapat menentukan hala tuju murid pada setiap sesi pengajaran.

Mengikut laporan UNESCO *(Report of the International Commission on Education for the Twenty First Century, 2011*) pendidikan abad 21 lebih berfokus kepada melahirkan modal insan yang bertindak menghasilkan sesuatu yang membawa manfaat berlandaskan skop yang global dengan aplikasi teknologi terkini, berilmu untuk berfikir secara kristis dan kreatif serta mampu menyesuikan diri dalam perkembangan dan perubahaan semasa. Selaras dengan ini, Dembo & Seli (2012) menjelaskan bahawa reka bentuk pendekatan pengajaran dan pembelajaran abad 21 yang lebih menarik dan berkesan telah diperkenalkan atas kemajuan teknologi abad 21. Perubahan pendidikan dari semasa ke semasa ini selaras dengan pembangunan ekonomi, kemajuan fikiran, kehendak teknologi pengajaran abad ke 21. Warga pendidik perlu bersedia dan menerima perubahan serta cabaran ini dengan hati yang terbuka. Kaedah konvensional menunjukkan interaksi yang lemah, pembelajaran dalam mod sehala, kekurangan sumber pembelajaran dan kurang maklum balas daripada murid- murid lemah (Rajendran, 2010) dan tidak lagi sesuai dalam pengajaran dan pembelajaran abad 21. Memandangkan kepentingan untuk menjadikan pembelajaran lebih bermakna kepada pelajar, adalah penting untuk kajian ini dijalankan bagi mengenalpasti kepentingan amalan pengajaran dan pembelajaran abad 21 dan menggantikan kekurangan dalam kaedah pembelajaran konvensional yang berpusat guru. Oleh yang demikian, kajian ini cuba menjawab soalan yang berikut: Sejauhmanakah guru-guru berkeupayaan melaksanakan amalan pengajaran dan pembelajaran abad 21 di dalam PdP mereka?

Metodologi

Kajian ini berbentuk kuantitatif menggunakan kaedah tinjauan bagi mengumpul data. Menurut Uma & Roger (2010) kaedah kuantitatif bertujuan menentukan hubungan antara satu pemboleh ubah dengan satu pemboleh ubah yang lain dalam satu populasi. Instrumen soal selidik digunakan untuk mendapatkan pandangan responden berkaitan kepentingan amalan pengajaran dan pembelajaran abad 21 dalam pengajaran guru. Subjek kajian terdiri daripada 242 orang guru daripada 34 buah sekolah di daerah Hulu Kinta sebagai sampel kajian. Instrumen yang digunakan dalam kajian ini telah diadaptasi dan diubahsuai daripada *Instrument Partnership for 21st Century skill (p21.org), (2015),* dengan sedikit ubahsuai mengikut keperluan kajian. Item yang disoal terdiri daripada lapan dimensi utama dalam rangka kerja kemahiran, iaitu kemahiran pemikiran kritikal, kemahiran komunikasi, kemahiran refleksi, kemahiran kolaborasi, kemahiran pentaksiran, kemahiran penyelesaian masalah, kemahiran teknologi, kemahiran kreativiti dan kemahiran inovasi. Amalan

pengajaran dan pembelajaran abad ke 21 diukur dengan menjumlahkan semua skor pada setiap skala. Kajian ini menggunakan Skala Likert 5 pilihan untuk mengukur persepsi guru berkaitan amalan pengajaran dan pembelajaran abad 21. Data yang dikumpulkan akan dianalisis dengan menggunakan analisis deskriptif dan inferensi (frekuensi, peratus, min dan sisihan piawai).

Dapatan Kajian

Profil Responden

Jadual 1 menunjukkan demografi responden yang terdiri daripada guru-guru sekolah rendah dari daerah Hulu Kinta, Perak. Data menunjukkan seramai 63.2% orang guru adalah dari sekolah bandar, manakala 36.8% orang guru dari sekolah luar bandar. Seramai 242 orang guru telah terpilih sebagai sampel kajian yang mana 15.7% adalah guru lelaki dan 84.3% adalah guru perempuan. Berdasarkan kepada pengalaman guru mengajar pula, seramai 14.5% guru berpengalaman mengajar antara 1 hingga 5 tahun, 19% guru berpengalaman antara 6 hingga 10 tahun, 36% berpengalaman antara 11 hingga15 tahun dan seramai 30.6% guru mempunyai pengalaman mengajar melebihi 16 tahun keatas. Manakala bagi data kelayakan akademik tertinggi pula, seramai 10.4% berkelulusan SPM/STPM, 14.5% berkelulusan diploma, 70.1% berkelulusan Ijazah Sarjana Muda dan 5.0% berkelulusan Ijazah Sarjana.

Jadual 1: Demografi Guru

	Latar Belakang	Frekuensi	%
Lokasi Sekolah	Bandar	153	63.2
	Luar Bandar	89	36.8
Jantina	Lelaki	38	15.7
	Perempuan	204	84.3
Pengalaman	1 – 5 Tahun	35	14.5
Mengajar	6 – 10 Tahun	46	19.0
	11-15 Tahun	87	36.0
	16 Tahun Ke Atas	74	30.6
Kelayakan	SPM / STPM	25	10.4
Akademik Tertinggi	Diploma	35	14.5
	Ijazah Sarjana Muda	169	70.1
	Ijazah Sarjana	12	5.0

Jadual 2 memaparkan taburan persepsi guru berkaitan amalan pengajaran dan pembelajaran abad 21 dari aspek Kemahiran Pemikiran Kritikal**.** Dapatan menunjukkan kebanyakan guru menekankan aspek kemahiran pemikiran kritikal dalam pengajaran dan pembelajaran mereka dalam aspek membimbing murid menjawab soalan pada aras tinggi (77.4%), mengemukakan soalan pada aras tinggi semasaberinteraksi di dalam kelas (64.5%) dan merancang penggunaan kemahiran berfikir aras tinggi semasa berinteraksi dalam kelas

(66.6%). Secara keseluruhan, penerapan kemahiran pemikiran kritikal adalah tinggi (min=3.71; S.P=0.65).

Jadual 2: Amalan Pengajaran dan Pembelajaran Abad 21 (Dimensi Pemikiran Kritikal).

Item	Frekuensi (%)			Min	Sisishan Piawai
	Rendah	Sederhana	Tinggi		
Merancang penggunaan kemahiran berfikir aras tinggi semasa berinteraksi dalam kelas	8 (2.3)	74 (30.6)	161(66.6)	3.70	0.68
Mengemukakan soalan aras tinggi semasa berinteraksi dalam kelas	4 (1.6)	82 (33.9)	56 (64.5)	3.71	0.68
Membimbing murid menjawab soalan pada aras tinggi	5 (2.1)	57 (23.5)	180 (77.4)	3.80	0.62
Menggunakan alat- alat kemahiran berfikir aras tinggi	6 (2.5)	88 (36.4)	148 (61.2)	3.64	0.63
Keseluruhan				3.71	0.65

Kemahiran Komunikasi

Jadual 3 pula memaparkan min dan sisihan piawai berdasarkan aspek kemahiran komunikasi yang dianggap penting oleh guru. Guru melihat tiga amalan dalam kemahiran komunikasi sebagai penting iaitu memberi tugasan dalam kumpulan berasaskan tajuk kepada murid (75.6%), menggalakkan murid berkomunikasi dalam melaksanakan projek yang diberi (73.5%) dan memastikan tugasan menggunakan pendekatan pelbagai disiplin ilmu dan kemahiran komunikasi (70.7%). Secara keseluruhan, kemahiran komunikasi adalah tinggi (min=3.76; S.P=0.64). Ini bermakna, kemahiran komunikasi dapat membawa kepada pengikatan norma-norma tingkah laku yang menyokong kakitangan dalam amalan pengajaran dan pembelajaran abad ke 21.

Jadual 3: Amalan Pengajaran dan Pembelajaran Abad 21 (Dimensi Pemikiran Komunikasi)

Item	Frekuensi (%)			Min	Sisihan Piawai
	Rendah	Sederhana	Tinggi		
Memberi tugasan dalam kumpulan berasaskan tajuk kepada murid	7 (2.9)	52 (21.5)	183 (75.6)	3.80	0.62
Menggalakkan murid berkomunikasi dalam melaksanakan projek yang diberi	7 (2.9)	57 (23.5)	178 (73.5)	3.81	0.66
Memastikan tugasan menggunakan pendekatan pelbagai disiplin ilmu dan kemahiran komunikasi	3 (1.2)	68 (28.1)	171 (70.7)	3.75	0.59
Mengggalakkan murid membentangkan hasil dapatan projek yang dihasilkan	8 (3.3)	80 (33.1)	154 (63.7)	3.66	0.69

Kemahiran Refleksi

Jadual 4 menunjukkan majoriti guru turut menganggap kemahiran refleksi sebagai penting dalam amalan pengajaran dan pembelajaran abad 21untuk dua konstruk iaitu menulis refleksi selepas sesi pengajaran dan pembelajaran (74.4) dan menggalakkan murid membuat refleksi kendiri selepas sesi pengajaran dan pembelajaran (64.4), di mana skor min menunjukkan

kedua dua konstruk ini pada tahap tinggi. Secara keseluruhan, amalan pengajaran dan pembelajaran abad ke 21 dengan kemahiran refleksi adalah tinggi (min=3.70; S.P=0.70). Ini bermakna, guru-guru sentiasa mengamalkan kemahiran refleksi untuk meningkatkan lagi kualiti pengajaran serta menggalakkan murid merumuskan isi pembelajaran pada sesi tersebut.

Jadual 4: Amalan Pengajaran dan Pembelajaran Abad 21 (Dimensi Pemikiran Refleksi)

Item	Frekuensi (%)			Min	Sisihan Piawai
	Rendah	Sederhana	Tinggi		
Membimbing murid menulis refleksi dengan betul dan berkesan	14(1.3)	76 (31.4)	152 (62.9)	3.61	0.69
Menggalakkan murid membuat refleksi kendiri selepas sesi pengajaran dan pembelajaran	10(4.1)	76 (31.4)	156 (64.4)	3.70	0.72
Mendapatkan maklum balas rakan sebaya dalam sesi pengajaran dan pembelajaran	8 (3.3)	89 (36.8)	145 (59.9)	3.64	0.69
Menulis refleksi selepas sesi pengajaran dan pembelajaran	5 (2.1)	57 (23.6)	180 (74.4)	3.88	0.70

Kemahiran Kolaborasi

Jika ditinjau dari aspek kemahiran kolaborasi mendapati penerapan keempat-empat konstruk ini berada pada tahap sederhana seperti yang ditunjukkan dalam Jadual 5. Secara keseluruhan, amalan pengajaran dan pembelajaran abad 21 dari aspek kemahiran kolaborasi adalah sederhana (min=3.51; S.P=0.71). Ini bermakna, kemahiran kolaborasi di kalangan guru masih boleh ditingkatkan lagi untuk meningkatkan lagi kualiti pengajaran dan pembelajaran.

Kemahiran Pentaksiran

Kemahiran Pentaksiran guru juga berada pada tahap sederhana dimana kempat-empat konstruk menunjukkan amalan pengajaran dan pembelajaran abad ke 21 dalam dimensi kemahiran pentaksiran adalah sederhana (min=3.61; S. P=0.69). Ini bermakna, guru perlu mempertingkatkan lagi penerapan kemahiran pentaksiran untuk memenuhi keperluan pendidikan abad ke 21 ini.

Jadual 5: Amalan Pengajaran dan Pembelajaran Abad 21 (Kemahiran Kolaborasi)

Item	Frekuensi (%)			Min	Sisihan Piawai
	Rendah	Sederhana	Tinggi		
Bekerjasama dengan rakan setugas untuk membangunkan komuniti pembelajaran profesional	18(7.4)	86 (35.5)	138 (57)	3.58	0.76
Menggalakkan murid menggunakan pelbagai media sosial untuk berinteraksi	12(5.0)	76 (31.4)	154 (63.7)	3.64	0.64
Mengamalkan *lesson study* untuk meningkatkan tahap profesionalisme	41(17.0)	101 (41.7)	100 (41.3)	3.26	0.82

keguruan Menggunakan pendekatan kolaboratif dalam pengajaran dan pembelajaran	10 (4.1)	83 (34.3)	149 (61.6)	3.61	0.64

Jadual 6: Amalan Pengajaran dan Pembelajaran Abad 21(Dimensi Pentaksiran)

Item	**Frekuensi (%)**			**Min**	**Sisihan Piawai**
	Rendah	Sederhana	Tinggi		
Melakukan pentaksiran berasaskan hasil pembelajaran kursus	30(12.4)	67 (27.7)	145 (59.9)	3.50	0.86
Menggalakkan murid membuat penilaian kendiri	8 (3.3)	88 (36.4)	146 (60.3)	3.60	0.62
Menggalakkan murid membuat penilaiaan rakan sebaya	9 (3.7)	95 (39.3)	138 (57)	3.57	0.65
Memberikan maklum balas segera terhadap tugasan murid	7 (2.9)	49 (20.2)	186 (76.8)	3.80	0.61

Kemahiran Penyelesaian Masalah

Jadual 7 menunjukkan majoriti guru memiliki kemahiran penyelesaian masalah pada tahap tinggi dimana apabila dilihat dengan lebih mendalam mendapati keempat-empat konstruk amalan pengajaran dan pembelajaran abad ke 21 dalam dimensi penyelesaian masalah adalah tinggi (min=3.79; S.P=0.65).

Jadual 7: Amalan Pengajaran dan Pembelajaran Abad 21 (Dimensi Penyelesaian Masalah)

Item	**Frekuensi (%)**			**Min**	**S.P**
	Rendah	Sederhana	Tinggi		
Mengamalkan pengajaran melalui pendekatan penyelesaian masalah	4 (1.6)	57 (23.6)	181 (74.8)	3.82	0.63
Mengaitkan kursus yang diajar dengan masalah kehidupan seharian	9 (3.7)	61 (25.2)	172 (71.1)	3.76	0.69
Menggalakkan murid menggunakan pelbagai strategi penyelesaian masalah	5 (2.1)	56 (23.1)	181 (74.8)	3.82	0.61
Memastikan masalah yang diberikan bersifat pelbagai disiplin	8 (3.3)	65 (26.9)	169 (69.9)	3.77	0.68

Kemahiran Teknologi Maklumat

Jadual 8 pula memaparkan persepsi guru terhadap kemahiran teknologi dan kepentingan dalam melaksanakannya dalam pengajaran dan pembelajaran mereka. Guru bersetuju bahawa tiga konstruk kemahiran teknologi sebagai penting iaitu menggunakan pedagogi digital berbanding kaedah tradisional (3.86), menggalakkan pelajar menggunakan teknologi yang sesuai untuk menyiapkan tugasan (3.75) dan menggalakkan pelajar menggunakan media

sosial untuk berinteraksi (3.68). Secara keseluruhan, amalan pengajaran dan pembelajaran abad ke 21 dalam dimensi kemahiran teknologi adalah tinggi (min=3.69; S.P=0.67).

Jadual 8: Amalan Pengajaran dan Pembelajaran Abad 21 (Dimensi Teknologi Maklumat)

Item	Frekuensi (%)			Min	Sisihan Piawai
	Rendah	Sederhana	Tinggi		
Menggunakan pedagogi digital berbanding kaedah tradisional	4 (1.7)	50 (20.7)	188 (74.8)	3.86	0.59
Menggalakkan pelajar menggunakan media sosial untuk berinteraksi	10 (4.1)	71 (29.3)	161 (71.1)	3.68	0.66
Menggunakan perisian yang sesuai dan mesra pengguna semasa interaksi	15 (6.2)	88 (36.4)	138 (57.0)	3.51	0.70
Menggalakkan pelajar menggunakan teknologi yang sesuai untuk menyiapkan tugasan	13 (5.4)	58 (24.0)	171 (70.6)	3.75	0.71

Kemahiran Kreativiti dan Inovasi

Seterusnya, analisis bagi kemahiran kreativiti dan inovasi menunjukkan guru mempunyai dimensi ini pada tahap sederhana sahaja dimana min keseluruhan adalah (min=3.61; S.P=0.68). Dua konstruk yang berada pada tahap tinggi ialah menerapkan kemahiran kreativiti dan inovasi dalam gerak kerja kumpulan murid (3.70) dan menggunakan kreativiti dan inovasi dalam pengajaran dan pembelajaran (3.69).

Jadual 9: Amalan Pengajaran dan Pembelajaran Abad 21 (Dimensi Kreativiti dan Inovasi)

Item	Frekuensi (%)			Min	Sisihan Piawai
	Rendah	Sederhana	Tinggi		
Menggunakan kreativiti dan inovasi dalam pengajaran dan pembelajaran	5 (2.1)	81 (35.5)	156 (64.4)	3.69	0.62
Menyampaikan input dengan kreatif dan inovasi semasa dalam kelas	19 (7.8)	91 (37.6)	132 (54.5)	3.50	0.70
Menerapkan elemen kreativiti dalam proses pengajaran dan pembelajaran	16 (6.2)	84 (34.7)	142 (58.7)	3.56	0.71
Menerapkan kemahiran kreativiti dan inovasi dalam gerak kerja kumpulan murid	13 (5.4)	63 (26.0)	166 (79.2)	3.70	0.68

Jadual 10 menunjukkan susunan min berdasarkan kepentingan amalan pengajaran dan pembelajaran abad 21 menurut persepsi guru. Jika dikaji dengan lebih mendalam mendapati lima dimensi amalan pengajaran dan pembelajaran abad ke 21 tersenarai di tahap tinggi mengikut ranking iaitu kemahiran penyelesaian masalah (3.79), kemahiran komunikasi (3.76), kemahiran pemikiran kritikal (3.74), kemahiran refleksi (3.70) dan kemahiran teknologi maklumat (3.69). Tiga daripada kemahiran berada pada tahap sederhana. Walaubagaimanapun, analisis keseluruhan menunjukkan bahawa persepsi guru terhadap kelapan-lapan dimensi amalan pengajaran dan pembelajaran adalah berada pada tahap tinggi (min=3.68; S.P=0.67).

Jadual 10: Susunan Min Menurut Kepentingan Amalan Pengajaran dan Pembelajaran Abad ke 21 Mengikut Dimensi Kemahiran

Bil.	Amalan Pengajaran dan Pembelajaran Abad ke 21	Min	S.P	Tahap
1	Kemahiran Penyelesaian Masalah	3.79	0.65	Tinggi
2	Kemahiran Komunikasi	3.76	0.64	Tinggi
3	Kemahiran Pemikiran Kritikal	3.74	0.65	Tinggi
4	Kemahiran Refleksi	3.70	0.70	Tinggi
5	Kemahiran Teknologi Maklumat	3.69	0.67	Tinggi
6	Kemahiran Pentaksiran	3.61	0.69	Sederhana
7	Kemahiran Kreativiti dan Inovasi	3.61	0.68	Sederhana
8	Kemahiran Kolaborasi	3.51	0.71	Sederhana
Keseluruhan		3.68	0.67	Tinggi

Perbincangan

Amalan Pengajaran Dan pembelajaran Abad 21 Di Kalangan Guru

Amalan pengajaran dan pembelajaran abad ke 21 merujuk kepada pendekatan yang diamalkan oleh guru semasa proses pengajaran dan pembelajaran di bilik darjah untuk meningkatkan pembelajaran murid. Guru-guru mempunyai keupayaan untuk menerapkan kesemua dimensi kemahiran dalam amalan pengajaran dan pembelajaran abad 21. Berdasarkan kepada lapan dimensi kemahiran amalan pengajaran dan pembelajaran abad 21 yang dikaji, didapati bahawa tiga amalan pengajaran dan pembelajaran abad 21 yang paling dominan diamalkan oleh guru-guru ialah kemahiran penyelesaian masalah, kemahiran komunikasi dan kemahiran pemikiran kritikal. Dapatan ini menyokong pandangan Badrul Hisham dan Mohd Nasruddin (2016) yang menjelaskan bahawa guru-guru sekolah umpama ibu bapa murid semasa di sekolah. Oleh itu, guru yang efektif akan sensitif dan peka terhadap perbezaan cara belajar murid dan keperluan murid. Guru akan mengubahsuai cara pengajarannya dengan mengambil kira perbezaan yang wujud setiap masa dan tidak dapat dirancang. Dapatan ini turut dipersetujui oleh Mohd Sahandri Gani et al., (2011) bahawa kemahiran berkomunikasi secara berkesan juga berperanan mempengaruhi pengajaran guru di dalam kelas. Guru yang berkualiti semestinya mahir semasa berinteraksi dengan murid-muridnya melalui penggunaan bahasa yang sesuai dan fasih serta boleh berkomunikasi dengan sempurna melalui kepetahan bertutur.

Walau bagaimanapun, dapatan kajian mendapati dua item kemahiran pemikiran kritikal iaitu membimbing murid menjawab soalan dan menggunakan alat-alat kemahiran berfikir aras tinggi berada pada tahap sederhana. Ini bermakna kebanyakan guru masih

mengamal pengajaran secara tradisional dan lebih berfokus pada guru. Dapatan keputusan ini selari dengan pandangan Sylvia dan Tobia (2014). menyatakan sebenarnya sesetengah guru tidak pernah bersedia secukupnya untuk membolehkan mereka mengajar kandungan mata pelajaran dan pada sama yang sama menerapkan KBAT. Oleh itu, guru harus membudayakan KBAT dari semasa ke semasa sebagai transformasi dalam pendidikan.

Selain itu, konsep Bilik Darjah Abad 21 yang menggunakan pelbagai teknologi terkini, turut dibangunkan yang menyokong amalan KBAT. Penggunaan sumber berunsurkan KBAT dan alat- alat berfikir seperti CORT *(Cognitif Research Trust), i-Think dan 6 Thinking* Hat. Selanjutnya, Alat Pengurusan Grafik seperti peta pengetahuan, peta konsep, peta cerita dan alat pengurusan kognitif merupakan sumber KBAT yang mampu meningkatkan keterampilan guru dan murid dalam berfikir (Susanne, 2014). Berdasarkan kepada dapatan ini adalah disyorkan agar guru-guru memberi tumpuan kepada melatih murid berani bertampil ke hadapan untuk berkongsi maklumat. Selain itu, penghayatan pendidikan harus dihayati oleh para pendidik supaya murid berani mengeluarkan pendapatnya. Cadangan ini jelas menunjukkan kesamaan dengan pernyataan oleh Susanne (2014) yang menyatakan bahawa guru yang kreatif dan berinovasi berupaya menginspirasi murid-murid untuk memberi sumbangan melampaui ekspektasi dalam proses pembelajaran.

Selanjutnya, dimensi kemahiran kolaborasi merupakan kemahiran yang paling kurang dimiliki oleh guru-guru berbanding kemahiran lain dimana guru-guru perlu lebih bekerjasama dengan rakan setugas untuk membangunkan komuniti pembelajaran profesional dan menggalakkan murid menggunakan pelbagai media sosial untuk berinteraksi. Kemahiran kolaborasi mencatat min yang terendah disebabkan guru menghadapi kekangan masa untuk menjalan aktiviti kolaboratif dengan rakan sebaya. Guru pada zaman sekarang dibebankan dengan pelbagai tugas pentadbiran seperti PBS (Pentaksiran Berasaskan Sekolah) yang diperkenalkan di sekolah rendah pada 2011, PBD (pentaksiran Bilik Darjah) yang diperkenalkan pada 2017, kemasukan markah secara online dan sebagainya Rajendran (2010). Tugasan pentadbiran ini secara tidak langsung telah mengurangkan masa guru untuk melakukan perbincangan cara pengajaran yang lebih bermanfaat kepada murid.

Dapatan kajian ini juga disokong oleh pengkaji lepas Badrul Hisham dan Mohd Nasruddin (2016) bahawa amalan kemahiran kolaborasi di kalangan guru adalah sederhana dan terdapat ruang untuk membuat peningkatan. Pihak sekolah perlu membenarkan penglibatan ibu bapa dalam amalan pengajaran dan pembelajaran melalui strategi komuniti pembelajaran. Pandangan ini selari dengan Fulton dan Britton (2011) menegaskan bahawa pihak guru dan pentadbir sekolah perlu mempunyai fikiran yang terbuka luas, boleh mendengar, menerima dengan memberi pandangan secara terbuka dan bersifat sejagat. Syed Ismail dan Ahmad Subki (2010) mengesyorkan agar pentadbir sekolah menjemput penceramah luar untuk memberi taklimat atau kursus berkaitan dengan amalan dan strategi komuniti pembelajaran profesional supaya hubungan yang baik terbina antara kedua-dua belah pihak.

Selain itu,dimensi kemahiran pentaksiran guru-guru juga berada pada tahap yang sederhana sahaja dimana ketiga tiga item dimensi ini iaitu melakukan pentaksiran berasaskan hasil kerja kursus, menggalakkan murid membuat penilaian kendiri dan menggalakkan murid membuat penilaian rakan sebaya berada pada tahap sederhana. Ini bermakna perubahan penilaian murid dalam sekolah yang baru masih belum dapat disesuaikan dengan baik oleh guru dan murid. Berdasarkan kepada dapatan ini adalah disyorkan guru harus mengamalkan konsep pembelajaran berasaskan projek (PBL) semasa sesi pengajaran. Program berkonsep PBL ini akan mengalakkan murid menyelidik dengan merujuk pelbagai sumber disamping

menjalankan kajian atau penyelidikan secara berkumpulan. Pembentangan hasil kerja, membuat penilaian dan penambahbaikan secara berkumpulan akan wujud dan secara langsung dapat membantu memantapkan nilai ”*soft skills*” murid. Pendekatan dan strategi pembelajaran ini berupaya meningkatkan kemahiran mangurus, menilai, mencipta dan membuat keputusan. Selain itu, kemahiran berkomunikasi dan berinteraksi dalam masyarakat juga dapat ditingkatkan.

Rumusan dan Cadangan

Secara amnya, guru-guru mempunyai kemahiran yang tinggi dalam lima dimensi kemahiran iaitu kemahiran penyelesaian masalah, kemahiran komunikasi, kemahiran kritikal, kemahiran refleksi dan kemahiran teknologi maklumat. Namun hanya mempunyai kemahiran pentaksiran, kemahiran kreativiti dan inovasi dan kemahiran kolaborasi yang sederhana. Melalui kajian ini dapat disimpulkan bahawa amalan pengajaran dan pembelajaran abad 21 dikalangan guru adalah tinggi. Amalan pengajaran dan pembelajaran abad ke 21 mempunyai pengaruh yang positf terhadap kualiti guru dalam menyampaikan pengajaran dan mendidik pelajar dengan baik. Kualiti yang ada pada seseorang guru akan mendorong guru lebih yakin dalam penyampaian ilmu kepada pelajar.

Kemahiran komunikasi merupakan antara kemahiran yang penting untuk dimiliki oleh guru-guru. Kemahiran komunkasi ini merupakan alat penyampaian para guru semasa setiap kali proses pengajaran dan pembelajan berlangsung. Abdullah dan Ainon (2000) menyarankan bahawa fungsi komunikasi yang paling utama ialah menjalinkan hubungan dan penyampaian yang baik. Kemahiran menghiburkan murid-murid perlu ada kerana murid-murid mengasihi guru yang mampu mewujudkan hubungan interpersonal yang berkesan. Bagi memastikan wujud hubungan interpersonal yang berkesan, guru perlu melihat murid-murid mereka sebagai aset yang sangat berharga dan perlu dididik dengan sempurna. Guru-guru juga wajar mempertingkatkan kemahiran kolaborasi dan kemahiran pentaksiran yang dimiliki supaya amalan pengajaran dan pembelajaran abad 21 menjadi lebih berkesan. Setiap individu yang bergelar pendidik perlu membina hubungan interpersonal untuk mewujudkan persefahaman dan rasa saling percaya-mempercayai dengan murid, ibu bapa dan rakan sebaya dengan mengambil kira beberapa aspek positif seperti prihatin, mengambil berat, mesra, ikhlas, dan mempunyai sikap menerima.

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HUBUNGAN KEPIMPINAN TRANSFORMASI GURU BESAR DENGAN KOMITMEN KERJA GURU DALAM KALANGAN GURU-GURU SEKOLAH RENDAH JENIS KEBANGSAAN CINA (SJKC) DI DAERAH HILIR PERAK

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ABSTRAK: *Kajian ini bertujuan untuk mengenal pasti hubungan kepimpinan transformasi guru besar dengan komitmen kerja guru dalam kalangan guru-guru sekolah rendah jenis kebangsaan cina (SJKC). Kajian ini khusus untuk mengenal pasti sama ada terdapat hubungan yang signifikan antara dimensi-dimensi dalam kepimpinan transformasi guru besar dengan komitmen kerja guru. Reka bentuk kajian yang digunakan ialah kajian berbentuk kuantitatif deskriptif. Soal selidik digunakan sebagai instrumen utama untuk mengumpul data daripada responden kajian. Seramai 196 orang guru dari 20 buah Sekolah Jenis Kebangsaan Cina (SJKC) yang berada di bawah pentadbiran Pejabat Daerah Hilir Perak, Perak Darul Ridzuan telah dipilih untuk menjawab soalan selidik ini. Data yang diperoleh dianalisis menggunakan kaedah statistik deskriptif untuk menentukan frekuensi, peratus, min dan sishan piawai serta kaedah statistik inferensi iaitu pekali kolerasi Pearson bagi menguji hipotesis. Keputusan ujian kolerasi Pearson mendapati terdapat hubungan yang signifikan yang tinggi di antara kepimpinan transformasi guru besar dengan komitmen guru-gurudi sekolah-sekolah yang terlibat. Oleh itu, amalan kepimpinan transformasi Guru Besar pada tahap yang tinggi dapat meningkatkan komitmen guru terhadap tugasnya di sekolah.*

Kata Kunci*: Kepimpinan Tranformasi, Komitmen Kerja Guru*

PENGENALAN

Latar Belakang Kajian

Dalam usaha untuk mempertingkatkan sistem pendidikan negara kita, Kementerian Pendidikan Malaysia (KPM) berperanan penting untuk menyediakan kepimpinan hala tuju dasar dan juga memberi sokongan yang sangat tinggi bagi mencapai matlamat tersebut. Selain itu, KPM juga perlu berdepan dengan cabaran-cabaran pendidikan dan juga perlu melakukan transformasi terhadap susunan bahagian-bahagiannya serta caraberoperasi supaya meminimakan jurang antara pembentukan dasar dan keupayaan pelaksanaan.

Menurut Jamilah dan Yusof (2011), sesebuah organisasi atau sekolah mencapai kejayaan bergantung kepada keberkesanan seluruh sistem, kepercayaan, nilai sertakebudayaan yang dipraktiskan oleh semua warga sekolah iaitu murid, staf sokongan, guru-guru dan pihak pentadbir. Sebagai pemimpin sekolah, guru besar memberi pengaruh yang tinggi terhadap kecemerlangan dan kejayaan sekolah tersebut. Secara langsungya, mereka bertanggungjawab dalam melaksanakan semua aktiviti dan program pendidikan di sekolah.

Peranan guru besar selaku pemimpin yang tertinggi di sekolah rendah perlulah memastikan transformasi pendidikan dalam sesebuah sekolah rendah mencapai objektif yang seperti mana yang dihasratkan. Tugas-tugas atau tanggungjawab guru besar seperti mentadbir,

mengurus, menyelia, mengarah, menyelaras, menilai, menjadi pewakil, pemudahcara, pemberangsang dan lain-lain. Kemampuan seseorang guru besar dapat diketahui dengan melihat peranan mereka di sekolah dengan cara menguruskan sekolah tersebut sama ada berjaya atau sebaliknya.

Guru besar di sekolah memegang tanggungjawab yang paling utama terhadap segala aktiviti yang dijalankan. Kebolehan dan amalan menginterpretasikan perubahan serta melaksanakan inovasi gaya kepimpinan harus ada pada guru besar supaya dapat menggerakkan dan memotivasikan semua guru dan kakitangan ke arah mencapai matlamat sekolah. Tranformasi di sekolah perlu diberi perhatian bukan sahaja diperlukan untuk melakukan perubahan teknologi, tetapi juga dalam membina semula organisasi sekolah yang akan menyokong kepada perubahan tersebut.

Pernyataan Masalah

Pada masa kini, guru besar secara logiknya sudah memiliki kompetensi yang diperlukan. Namun begitu, kompetensi yang sedia ada pada seorang guru besar boleh dipertingkatkan lagi. Biti Salwana, Ahmad Basri, Ramlee dan Mohammed Sani (2010) mengatakan bahawa kecekapan guru besar dalam pengurusan dan pentadbiran merupakan unsur utama yang menentukan keberhasilan dan keunggulan sesebuah organisasi. Dapatan kajian beliau yang berbentuk kualitatif iaitu secara temu bual telah menunjukkan bahawa kompetensi guru besar masih memerlukan sokongan dan kerjasama daripada semua warga sekolah agar pengurusan dan pentadbiran sekolah dapat dijalankan dengan lebih berkesan.

Kemahiran kepimpinan guru besar membawa kesan yang tinggi kepada komitmen dan motivasi kerja guru dalam memastikan keberkesanan sesebuah sekolah (Hishamuddin Shah, Mohd Rizal & Supian, 2013). Cabaran dalam penstrukturan semula sekolah serta persekitaran yang sentiasa mengalami perubahan, memerlukan guru besar mengubah corak kepimpinan tradisional mereka kepada yang lebih fleksibel supaya semua subordinat mereka dapat bertingkahlaku selari dengan hasrat organisasi (Amar, 2004).

Menurut Shariffah, Mohammed Sani dan Mohd Izham (2010), guru besar perlu meningkatkan ilmu pengetahuan dan kemahiran mereka dalam pengurusan sumber manusia bagi melahirkan guru-guru yang kompeten dan berkualiti yang mempunyai hubungan positif dengan pencapaian murid. Selain itu, terdapat kritikan berhubung dengan segelintir guru besar yang tidak berfungsi dengan sebaiknya. Guru Besar dikritik tidak menunjukkan tingkah laku dan ciri-ciri personaliti yang positif sebagai seorang pemimpin di sekolah. Menurut kajian Leithwood dan Levin (2010), mereka mengatakan bahawa guru besar masih belum bersedia untuk menerima cabaran dan membuat perubahan secara holistik bagi menyelesaikan masalah-masalah yang timbul dalam situasi-situasi tertentu.

Kajian Md Fadli, Dadan Ahmad Fadli dan Yohana Kartawijaya (2012) menyatakan bahawa komitmen kerja dan komitmen organisasi seseorang individu dipengaruhi oleh kompetensi yang dimilikinya sendiri. Menurut kajian Cashin et. al (2000) mendapati fakta tentang kepimpinan guru besar yang wujud berbentuk traditional di sekolah merupakan kepimpinan yang bersifat dominan dan memberi arahan. Kepimpinan ini juga boleh dimaksudkan semua guru hanya mengikut arahan atau tanggungjawab yang dipimpin oleh guru besar di sekolah.Terdapat tiga matlamat utama kepimpinan transformasi harus menjadi satu budaya kepimpinan di sekolah. Matlamat pertama ialah kepimpinan tranformasi dapat membangunkan semua guru dan juga budaya kerja kolaboratif dapat dikekalkan di sekolah. Matlamat kedua ialah kepimpinan tranformasi dapat mewujudkan situasi kerja yang

berprofesional di sekolah. Matlamat ketiga pula, melalui kepimpinan transformasi dapat memimpin guru-guru menghadapi cabaran-cabaran dengan berkesan.

Tujuan Kajian

Kajian ini bertujuan untuk mengenal pasti hubungan kepimpinan transformasi guru besar dengan komitmen kerja guru dalam kalangan guru-guru Sekolah Rendah Jenis Kebangsaan Cina (SJKC) di Daerah Hilir Perak.

Objektif Kajian

Objektif kajian ini adalah seperti berikut:

1. Mengenalpasti tahap amalan kepimpinan transformasiguru besar berdasarkan persepsi guru-guru Sekolah Rendah Jenis Kebangsaan Cina di Daerah Hilir Perak.
2. Mengenalpasti tahap komitmen kerja guru-guru di Sekolah Rendah Jenis Kebangsaan Cina di Daerah Hilir Perak.
3. Mengenalpasti samaada terdapat hubungan antara dimensi kepimpinan transformasi guru besar dengan komitmen kerja guru Sekolah Rendah Jenis Kebangsaan Cina di Daerah Hilir Perak.

Soalan kajian

Beberapa persoalan yang akan cuba dijawab dalam kajian ini adalah seperti berikut:

1. Apakah tahap kepimpinan transformasi guru besar berdasarkan persepsi guru?
2. Sejauh manakah tahap komitmen kerja guru-guru di sekolah?
3. Adakah terdapat hubungan yang signifikan antara dimensi kepimpinan transformasi guru besar dengan tahap komitmen kerja guru?

Hipotesis Kajian

Hipotesis nol yang dibentuk adalah seperti berikut:

Ho1:Tidak terdapat hubungan yang signifikan antara dimensi kepimpinan transformasi guru besar dengan tahap komitmen kerja guru di sekolah.

Kepentingan Kajian

Dapatan kajian ini boleh dimanfaatkan oleh guru besar bagi meninjau, mengkaji serta menilai kelemahan dan kekuatan dalam melaksanakan kepemimpinan di sekolah masing-masing terutamanya dalam usaha menjana komitmen guru-guru bagi menjayakan matlamat sekolah. Diharap juga kajian ini dapat menambah pengetahuan guru besar berhubung dengan kepemimpinan terutamanya yang berkaitan dengan amalan transformasi dan komitmen kerja guru. Selain itu, kajian ini amat berguna bagi menilai tahap gayakepimpinan diri dengan pandangan sudut positif terhadap gaya kepimpinan diri mengikut edaran masa serta kesesuaian untuk merealisasikan matlamat sekolah.

Bagi pihak Jabatan Pendidikan Negeri dan Kementerian Pendidikan Malaysia, kajian ini penting kerana ia dapat memberi idea atau input yang sesuai supaya pihak berkenaan dapat mengenalpasti dan menilai masalah yang dihadapi oleh guru besar sekolah rendah. Ia juga boleh dijadikan asas untuk memperincikan usaha ke arah meningkatkan keupayaan kepimpinan dan profesionalisme guru besar.

Batasan Kajian

Kajian ini hanya merangkumi maklumat tentang amalan kepimpinan transformasi guru besar terhadap komitmen kerja guru di sekolah jenis kebangsaan cina daerah Hilir Perak sahaja maka ia menghadapi kekangan dari segi kesimpulan dan generalisasi yang dibuat.

Selain itu, batasan kajian ini iaitu kaedah kuantitatif yang digunakan melibatkan halangan masa, tugasan kerja dan kerjasama dalam kalangan guru dan guru besar untuk menjawab soal selidik kajian. Disebabkan faktor-faktor ini menyebabkan guru-guru kurang memberikan perhatian yang sepenuhnya semasa mengisi borang soal selidik dan ini akan menjadi kesukaran pengkaji mengumpul semua borang soal selidik yang diedarkan. Menurut Aini (2007), alat pengukur dan alat perantaraan pengkaji dengan respondenadalah dinamakan sebagai instrumen. Apabila responden menghadapi batasan ketikamengisi borang soal selidik maka ia menjadi satu kekangan kepada pengkaji untuk membuat pengukuran.

Rumusan

Secara kesimpulannya, sekolah yang cemerlang amat memerlukan kepimpinan yang terbaik dan kerjasama dan hubungan yang erat antara guru besar dengan guru-guru. Usaha daripada kedua-dua pihak ini dapat menentukan kejayaan dan keunggulan sesebuah sekolah. Demi mencapai matlamat sekolah, guru besar hendaklah memiliki kepimpinan seperti kepimpinan transformasiiaitu memiliki pengetahuan, kemahiran, sikap, motif serta nilai dan kepercayaan bagi meningkatkan komitmen guru-guru dalam melaksanakan tugasnya di sekolah. Ini adalah penting memandangkan seorang guru yang mampu memberikan komitmen tinggi dalam tugasnya biasanya dapat menghasilkan kerja yang berkualiti.

TINJAUAN LITERATUR

Kepimpinan Transformasi

Kepimpinan tranformasi diasaskan oleh James Mac Gregor Burn (1978) dalam bukunya yang bertajuk “Leadership” telah menjelaskan bahawa,

“...Leadership as leader inducing followers to act for certain goals that represent the values and motivations-the wants and the needs, the aspirations and expectations of both leaders and followers, and the genius of leadership lies in the manner in which leaders see and act on their own and their followers values motivations”.

Maksud yang dibawa tentang transformasi merupakan perubahan atau mengubah sesuatu keadaan kepada bentuk yang lain. Di bawah kepimpinan transformasi, kebolehan seseorang pemimpin mendorong pengikutnya melakukan perubahan dari segi nilai dan tingkah laku agar dapat memberikan komitmen yang tinggi. Menurutnya lagi, apabila seseorang pemimpin dapat mengubah sikap pengikutnya daripada sikap mementingkan diri sendiri kepada mengutamakan kepentingan kelompok, pemimpin ini boleh dikatakan sebagai seorang pemimpin transformasi.

Bass (1990) pula menyatakan kepimpinan transformasi sebagai kepimpinan yang menunjukkan kecemerlangan yang luar biasa kerana mereka berjaya meluaskan dan mengembangkan minat subordinat dalam membangunkan kesedaran dan penerimaan terhadap tujuan dan misi kumpulan. Pemimpin ini juga mempunyai kebolehan membangunkan minat subordinat, tetapi minat yang dibangunkan melangkaui minat peribadi subordinat itu sendiri.

Komitmen Kerja Guru

Menurut O’Mailley (2000), komitmen boleh bermaksud seseorang yang dikehendaki menunaikan kewajipan atau gesaan ke atas perasaannya untuk melakukan sesuatu. Seseorang

yang komitmen akan merasa penglibatan serta hubungannya dalam sesuatu perkara dan mempunyai motivasi untuk mengekalkan hubungannya.

Komitmen kerja guru merupakan sikap dan tingkah laku yang mengambarkan inisiatif guru dalam tugasnya dan tanggungjawab peribadi dalam bilik darjah (Louis, 1998; Kurz, 2006). Seseorang yang komitmen pada kerjanya akan berasa bangga dengan kerjaya yang diceburinya maka komitmen boleh dikatakan sebagai kecenderungan dalaman yang positif (Flecther, 2007). Menurut Park (2005), komitmen adalah kekuatan yang datang dari dalaman diri seseorang guru itu sendiri di mana mereka memerlukan akauntabiliti yang berat dan cabaran dalam mengendalikan kerjayanya.

Teori

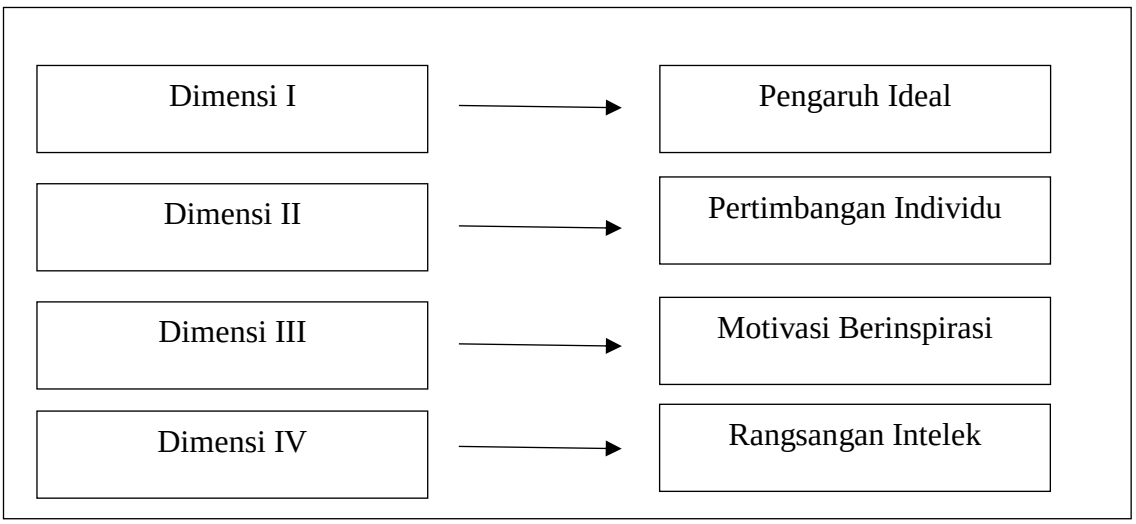
Teori Kepimpinan Transformasi Bass & Alovio (1994)

Rose (2010) memetik Bass (1985) menyatakan terdapat tiga proses kepimpinan untuk mencapai matlamat kepmpinan tranformasi iaitu pemimpin meningkatkan tahap kesedaran pengikutnya tentang kepentingan mencapai hasil yang diharapkan, pemimpin juga menggesa pengikutnya untuk mengubah fokus kepentingan diri kepada kepentingan kumpulan dan pemimpin merangsang pengikutnya untuk mencapai keperluan yang lebih baik.

Menurut Judge dan Piccolo (2004), kepimpinan transformasi didapati menjadi penanda aras yang kuat dalam kepimpinan berkesan. Menurut Bass (1985) pula, teori kepimpinan klasik sudah tidak sesuai lagi bagi memenuhi perubahan matlamat dan amalan kepimpinan semasa. Oleh itu, kepimpinan transformasi adalah satu keperluan dalam sesuatu organisasi.Beliau juga melihat kepimpinan transformasi amat penting dalam menanggani perubahan tersebut.

Berdasarkan Avolio dan Bass (2004) dalam Rose (2010), terdapat empat dimensi yanng berkaitan dengan kepimpinan transformasi iaitu pengaruh yang ideal, pertimbanagan individu, motivasi berinspirasi dan rangsangan intelek. Rajah 2.1 menunjukkan keempat-empat dimensi berdasarkan model transformation Bass dan Avolio (1994).

Rajah 2.1: Model Kepimpinan Transformasi Bass & Avolio (1994)



Dimensi pengaruh ideal di mana pemimpin dilihat sebagai role model yang dikagumi dan diikuti oleh pengikut-pengikutnya. Pemimpin berupaya untuk menjelaskan visi dengan tingkah laku unggulnya hingga subordinat dipengaruhi supaya sama-sama berusaha mencapai visi yang ditetapkan.

Dimensi pertimbangan individu iaitu pemimpin memberi tumpuan kepada keperluan dan potensi yang ada pada subordinatnya, ini berlaku kerana rasa selesa dan berkeyakinan dalam kalangan subordinat yang wujud di atas galakan dan sokongan oleh pemimpin transformasi.

Dimensi ketiga ialah motivasi berinspirasi. Ia merujuk kepada keupayaan dan tingkah laku pemimpin untuk memotivasikan subordinatnya agar lebih komited dan bersungguh-sungguh mencapai visi organisasi.

Dimensi yang terakhir iaitu rangsangan inteletual di mana pemimpin transformasi membimbing subordinatnya supaya mampu bertindak dengan kreatif dan inovatif semasa menyelesaikan masalah. Subordinat dididik agar lebih berani dan dapat memikirkan cara baru apabila menghadapi cabaran lama.

Menurut Nursuhaila Ghazali (2007), amalan kepimpinan transformasi ini menunjukkan bahawa kepimpinan seperti ini memberi manfaat baik kepada pemimpin, subordinat dan organisasi. Kesan amalan kepimpinan ini ialah melalui budaya kerja berpasukan, matlamat organisasi dapat dicapai, ilklim sekolah yang kondusif dapat diwujudkan, moral dan paradigma guru juga dapat ditingkatkan serta kerjasama antara ahli organisasi juga dapat dilihat.

Teori Komitmen Organisasi

Teori Allen & Meyer (1991)

Menurut Allen dan Meyer (1991), komitmen organisasi menunjukkan hubungan antara pekerja dengan organisasi dan mempunyai pengaruh dalam keputusan untuk tetap memberikan perkhidmatan di dalam organisasi tersebut. Keinginan dan kesanggupan seseorang pekerja memberikan tenaga dan melaksanakan tanggungjawabnya dengan baik bagi mempertahankan kejayaan sebuah organisasi. Individu akan mempertimbangkan kesesuaian nilai dan tujuan mereka dengan organisasi. Justeru itu, komitmen organisasi yang tinggi akan ditunjukkan dengan keyakinan yang kuat dan penerimaan terhadap nilai-nilai serta tujuan dari organisasi tersebut. Hal ini disebabkan hubungan anggota organisasi dengan organisasi mencerminkan perbezaan diantara ketiga-tiga dimensi iaitu komitmen afektif, komitmen berterusan dan komitmen normatif.

Terdapat tiga komponen dalam komitmen organisasi Allen dan Meyer (1991). Komitmen yang pertama iaitu komitmen afektif menunjukkan seseorang individu yang bersedia membantu organisasinya untuk mencapai objektif yang dapat memenuhi matlamat peribadinya sendiri. Ia berhubungkait dengan emosi individu, kerelaan seseorang individu itu terlibat dalam program organisasi secara aktif demi mencapai objektif yang sama. Komitmen yang kedua iaitu komitmen berterusan merupakan kekuatan seseorang pekerja tetap berkhidmat di sebuah organisasi disebabkan tiada alternatif lain serta mempertimbangkan risiko kerugian dan manfaat semasa yang ada sekiranya meninggalkan organisasi tersebut. Ketiga, komitmen normatif pula dikatakan sebagai perasaan seseorang pekerja tentang kewajiban dan tanggungjawab yang seharusnya diberikan kepada organisasi dengan berdasarkan pengalaman sosialnya.

Dalam kajian ini, pengkaji telah menggunakan teori komitmen organisasi yang dikemukakan oleh Allen dan Meyer (1990) untuk mengenal pasti komitmen guru di sekolah. Menurut Allen dan Meyer (1990), komitmen organisasi terdiri daripada tiga aspek iaitu komitmen afektif, komitmen berterusan dan komitmen normatif. Oleh itu, komitmen yang ditunjukkan oleh seseorang guru akan dapat dinilai dan diukur melalui tiga aspek komitmen yang dirumuskan oleh Allen dan Meyer (1990).

Kajian Lepas Yang Berkaitan dari Dalam Dan Luar Negara

Sebagai seorang pemimpin, guru besar bertanggungjawab keatas orang yang dipimpinnya iaitu guru-guru, staf sokongan dan pelajar. Ab. Aziz Yusof (2003) menyatakan bahawa kejayaan sesebuah organisasi bergantung kepada gaya kepimpinan yang ada di kalangan pemimpin dan kesediaan subordinat meberikan komitmen yang tinggi kepada organisasi, juga bergantung kepada pemimpin mempengaruhi dan menyakinkan mereka untuk bertindak. Menurut Segiovanni dalam Christopher (1998) menyatakan kepimpinan transformasi adalah apabila guru besar dan subordinatnya bersatu dalam mengejar matlamat di peringkat yang lebih tinggi. Oleh itu, untuk berjaya, guru besar sekolah perlu terlibat dalam proses sosialisasi, berkongsi nilai dan '*collegiality*'.

Satu kajian tentang kesan kepimpinan ke atas komitmen guru untuk berubah di Hong Kong yang telah dijalankan oleh Huen Yu, Kenneth Leithwood dan Doris (2002). Hasil kajian mendapati kesan yang signifikan dan kuat bagi kepimpinan transformasi ke atas budaya sekolah, strategi untuk berubah, struktur dan persekitaran sekolah di samping kesan yang signifikan juga tetapi lemah ke atas komitmen guru untuk berubah. Kajian ini juga mendapati corak kesan kepimpinan transformasi adalah sama antara Amerika Utara dan Hong Kong.

Dalam kajian bertajuk *"*Kesan Kepimpinan Transformasi Ke Atas Komitmen Dan Usaha Guru Yang Berlebihan Ke Arah Perubahan Sekolah" yang dijalankan oleh Femke Geijsel, Peter Sleegers, Kenneth Leithwood dan Doris Jantzi di Belanda dan Kanada (2003) menghasilkan hubungan yang signifikan (positif) di antara kepimpinan transformasi dengan penglibatan membuat keputusan, aktiviti perkembangan profesional dan kepercayaan terhadap kebolehan dan kemampuan.

Berdasarkan kajian yang telah dibuat oleh Ishak Sin (2002), mengenai "Gaya Kepimpinan Yang Disukai: Satu Kajian Kes Hipotetikal", seramai 198 orang responden terlibat dalam kajian ini yang terdiri daripada pegawai di Jabatan Pemdidian Negeri, Pegawai Pelajaran Daerah, Penyelia Daerah, Pengetua Kanan, Pengetua, Guru Besar dan Ketua-ketua Jabatan Unit Kolej Matrikulasi yang menghadiri kursus di IAB. Dapatan kajian mendapati bahawa gaya kepimpinan yang paling digemari oleh responden ialah gaya bertimbang rasa secara individu, gaya yang boleh merangsang intelektual, gaya yang mencetus dan membangkitkan motivasi serta sifat dan tingkah laku unggul. Kempat-empat gaya tersebut merupakan gaya bagi dimendi-dimendi kepimpinan transformasi di mana peratus yang menggambarkan respoden menggemarinya ialah antara 92.4% hingga 100%.

Satu kajian oleh Tan (2004) yang telah dijalankan ke atas 213 subjek yang mempunyai latar belakang pekerjaan dan organisasi yang berbeza terhadap tingkah laku kesetiaan penyelia terhadap organisasi. Dapatan kajian tersebut menunjukkan bahawa terdapat hubungan positif di antara kuasa memberi ganjaran dan kuasa paksaan dengan tingkah laku kesetiaan terhadap organisasi. Ini bermakna secara tidak langsung terdapat hubungan kuasa guru besar yang merupakan sebahagian daripada kuasa pemimpin dengan tingkah laku kesetiaan guru besar. Hasil kajian Boryeki (2004) tentang penghargaan kendiri dan prestasi di dalam organisasi menunjukkan tidak terdapat perbezaan signifikan di antara kumpulan kerja

'self-managed' dengan tingkah laku hasil daripada motivasi dalam kerja, kepuasan kerja dan komitmen terhadap organisasi. Walau bagaimanapun, wujud hubungan yang positif kumpulan tersebut dengan kesetiaan organisasi. Kesimpulan daripada kajian Boryeki, kesetiaan terhadap sesebuah oraganisasi dapat diwujudkan apabila adabya kumpulan *'self-managed'* dan ia patut diwujudkan untuk semua peringkat pengurusan.

METODOLOGI KAJIAN

Pengenalan

Tumpuan utama bab ini adalah untuk membincangkan dan menghurai secara terperinci tentang reka bentuk kajian, populasi dan sampel kajian, tempat kajian, tata cara kajian, instrumen kajian, prosedur pengumpulan data dan prosedur menganalisis data kajian.

Reka Bentuk Kajian

Kajian ini menggunakan kaedah tinjauan dengan menggunakan soal selidik sebagai instrumen dalam pengumpulan data kajian. Menurut Gay dan Airasian (2009), kaedah soal selidik adalah cara yang berkesan kerana tidak memerlukan masa dan perbelanjaan yang banyak, malahan membenarkan pengumpulan data dalam jumlah yang besar. Kajian ini melibatkan guru-guru yang masih berkhidmat di sekolah rendah jenis kebangsaan cina (SJKC) dalam daerah Hilir Perak, Perak.

Populasi Dan Sampel Kajian

Penetapan jumlah sampel kajian adalah berpandukan Jadual penentuan saiz sampel Krejcie dan Morgan (1970). Tindakan ini dilakukan agar data yang diperoleh lebih sahih dan relevan serta dapatan kajian boleh digeneralisasikan (Mohd Majid Konting, 1990). Populasi kajian ini adalah seramai 394 orang guru-guru yang berkhidmat di 20 buah sekolah rendah jenis kebangsaan cina (SJKC) yang terdapat di daerah Hilir Perak, Perak. Sampel kajian adalah seramai 196 orang guru.

Instrumen Kajian

Instrumen soal selidik yang digunakan terbahagi kepada 3 bahagian iaitu bahagian A (demografi responden), bahagian B (amalan kepimpinan transformasi guru besar) dan bahagian C (tahap komitmen kerja guru).

Bahagian A (Demografi) mengandungi soalan jenis nominal berkenaan jantina, umur, bangsa, kelayakan akademik, lokasi sekolah, pengalaman berkhidmat responden di bawah guru besar semasa di sekolah kajian.

Bahagian B mengandungi instrumen soal selidik MLQ (*Multifactor Leadership Questionnaires*) oleh Bass & Avolio (2004) yang telah diubahsuai daripada kajian Aniza Baharuddin (2015) bagi mengukur amalan kepimpinan transformasi guru besar. Bahagian ini mengandungi 16 item pernyataan yang merujuk kepada 4 dimensi kepimpinan transformasi iaitu pengaruh yang ideal, motivasi berinspirasi, rangsangan intelek dan pertimbangan individu.

Bahagian C pula mengandungi 15 item soalan untuk mengkaji tahap komitmen guru di sekolah. Item-item soalan dalam Bahagian C telah mengadaptasikan instrumen *TCM Employee Commitment Survey Academic Users Guide* (2004)yang terdiri daripada tiga elemen iaitu komitmen afektif, komitmen berterusan, dan komitmen normatif.

Bahagian B dan C adalah jenis ordinal di mana pengkaji telah menggunakan skala Likert lima point. Skala yang digunakan dalam bahagian B ialah 1 (Tidak pernah), 2 (Sekali

sekala), 3 (Kadang-kadang), 4 (Agak kerap) dan 5 (Seringkali). Bagi item bahagian C, pengkaji menggunakan 1 (Sangat tidak setuju), 2 (Tidak setuju), 3 (Setuju), 4 (Sangat setuju) dan 5 (Bersetuju sepenuhnya).

Kajian Rintis

Sebelum kajian sebenar dijalankan, satu kajian rintis dilaksanakan untuk menguji kesesuaian item dan kefahaman responden terhadap item. Menurut Sabitha Marican (2005), menyatakan bahawa kajian rintis dilaksanakan untuk mengetahui reaksi responden, mengetahui maksud item dalam instrumen dan mengenalpasti jangka masa yang diambil untuk mengisi sesuatu soal selidik. Ini juga dapat menentukan ciri-ciri soalan yang perlu diubahsuai atau dikekalkan.

Kajian rintis telah dilakukan dengan melibatkan 30 orang guru (disokong oleh (Sabitha Marican, 2005) di sebuah sekolah rendah di luar sampel kajian. Faktor yang diberi perhatian ialah responden yang terlibat dalam kajian rintis ini adalah mempunyai ciri-ciri yang sama dengan populasi kajian ini. Sampel yang terlibat adalah dari yang berlainan supaya kebarangkalian untuk berjumpa atau berinteraksi dengan individu dalam kajian sebenar adalah rendah.

ProsedurPemungutan Data

Pengkaji mendapat kebenaran daripada Bahagian Perancangan dan Penyelidikan Dasar Pendidikan (BPPDP), KPM untuk menjalankan penyelidikan tersebut. Setelah itu, penyelidik juga mendapatkan kelulusan daripada Jabatan Pendidikan Negeri Perak (JPN) dan Pejabat Pendidikan Daerah (PPD) Hilir Perak bagi mengedarkan borang soal selidik kepada semua guru di mana sekolah yang terlibat dalam kajian ini.

Borang soal selidik akan dihantar sendiri kepada para responden di 20 buah sekolah kajian dan kemudiannya diuruskan dengan bantuan guru besar serta penolong kanan di setiap sekolah yang terlibat. Penerangan tujuan penyelidikan turut diberi. Pengumpulan data daripada responden adalah selepas seminggu. Ini bertujuan memberikan masa yang secukupnya kepada responden untuk menjawab soalan.

Prosedur Penganalisisan Data

Bagi menganalisis data dengan kaedah statsitik deskriptif dan statistik inferensi, perisian *Statistical Package for Social Science (SPSS) versi 22.0* digunakan.

Analisis Statistik Deskriptif

Analisis statistik deskriptif digunakan untuk menunjukkan data pembolehubah dalam bentuk pengukuran frekuensi, nilai min, sisihan piawai dan peratusan. Ianya juga digunakan kerana data dapatan yang diperolehi adalah lebih ringkas dan mudah difahami. Penggunaan nilai min adalah kaedah yang digunakan secara meluas untuk menggambarkan respons semua peserta kajian terhadap item di dalam sesuatu instrumen (Creswell, 2008).

Dalam kajian ini, interprestasi skor min kajian ini ditunjukkan seperti dalam jadual 3.8.1

Jadual 3.8.1

Interprestasi Skor Min Kepimpinan Transformasi Guru Besar Terhadap Komitmen Kerja Guru.

Tahap	Interprestasi Skor Min
Tinggi	3.68 – 5.00

Sederhana	2.34 – 3.67
Rendah	1.00 – 2.33

(Sumber: Diubahsuai daripada jadual skor min oleh Pallant (2007) dalam Hamidah et al (2014))

Analisis Statistik Inferensi

Analisis statistik inferensi seperti pekali pearson (*r*) digunakan untuk membuat generalisasi satu populasi berdasarkan data asas yang diperolehi daripada sampel. Lay Yoon Fah dan Khoo Chwee Hoon (2008) menyatakan pekali kolerasi pearson (*r*) digunakan bagi mengukur kekuatan hubungan linear antara dua pembolehubah. Jadual 3.8.2 menunjukkan anggaran kekuatan perhubungan antara dimensi kepimpinan transformasi dengan komitmen kerja guru seperti yang dicadangkan oleh Davis (1971).

Jadual 3.8.2

Anggaran Kekuatan Perhubungan Antara Dimensi Kepimpinan Tranformasi Guru Besar Dengan Komitmen Kerja Guru

Nilai Pekali (*r*)	Tafsiran
.70 atau lebih	Hubungan yang sangat kuat/ tinggi
.50 atau .69	Hubungan yang kuat/ tinggi
.30 atau .49	Hubungan yang sederhana kuat/ tinggi
.10 atau .29	Hubungan yang rendah
.01 atau .09	Hubungan yang boleh diabaikan

(Sumber: Diubahsuai daripada Jadual Anggaran Kekuatan yang dicadangkan oleh Davis (1971) dalam Hamidah et al (2014)).

Kesimpulan

Secara keseluruhannya, bab ini menjelaskan kaedah penyelidikan yang digunakan dalam kajian ini seperti reka bentuk kajian, persempalan, instrumen kajian, kajian rintis, kebolehpercayaan item dan analisis data.

DAPATAN KAJIAN

Pengenalan

Bab ini membincangkan dapatan kajian berdasarkan objektif dan hipotesis yang telah dibentuk. Perbincangan ini adalah hasil analisis secara deskriptif dan inferensi yang menggunakan perisian *Statistical Package for Social Scienes (SPSS) versi 22.0*. Analisis yang dijalankan melibatkan analisis deskriptif untuk melihat skor min dan sisihan piawai.

Dapatan Kajian Secara Deskriptif Dan Inferensi

Analisis Latar Belakang Responden

Jadual 2: Latar Belakang Mengikut Jantina

Jantina	Bilangan Responden	Peratus
Lelaki	57 orang	29.1%
Perempuan	139 orang	70.9%

Jumlah	196 orang	100%

Statistik Deskriptif Maklumat Demografi (Umur) Responden

Umur	Kekerapan	Peratus
21 - 30 tahun	56	28.6
31 - 40 tahun	89	45.4
41 - 50 tahun	29	14.8
50 tahun ke atas	22	11.2
Jumlah	196	100.0

Analisis Keseluruhan Tahap Kepimpinan Transformasi Guru Besar

Jadual 4.3.5 menunjukkan nilai min dan sisihan piawai bagi skor keseluruhan tahap kepimpinan transformasi guru besar Sekolah Rendah Jenis Kebangsaan Cina daerah Hilir Perak. Skor min keseluruhan tahap kepimpinan transformasi guru besar mencapai 4.12 dengan sisihan piawai 0.596. Ini menunjukkan pada persepsi responden, guru besar telah melaksanakan kepimpinan tranformasi yang tinggi. Interprestasi ini konsisten dengan norma *MLQ* (Avolio dan Bass, 2004) serta interpretasi oleh Pallant (2007) dalam Hamidah et al (2014). Antara keempat-empat dimensi kepimpinan tranformasi, dimensi motivasi berinspirasi menunjukkan skor min yang paling tinggi iaitu 4.16 dengan sisihan piawai 0.639, diikuti oleh dimensi rangsangan intelek iaitu skor min 4.13 dengan sisihan piawai 0.673, dimensi pengaruh ideal di mana skor min ialah 4.11 dengan sisihan piawai 0.657 dan akhir sekali iaitu dimensi pertimbangan individu di mana skor min ialah 4.10 dengan sisihan piawai 0.587. Semua dimensi kepimpinan transformasi yang dinilai berada pada tahap yang tinggi.

Jadual 4.3
Skor Min Bagi Tahap Kepimpinan Transformasi Guru Besar Di SJKC Dalam Daerah Hilir Perak

Aspek	N	Min	Sisihan Piawai
Kepimpinan Transformasi Guru Besar	196	4.12	.596
Pengaruh Ideal	196	4.11	.657
Motivasi Berinspirasi	196	4.16	.639
Rangsangan Intelek	196	4.13	.673
Pertimbangan Individu	196	4.10	.587

Tahap Komitmen Kerja Guru-Guru Sekolah Rendah Jenis Kebangsaan Cina

Jadual 4.4

Skor Min Keseluruhan Tahap Komitmen Kerja Guru

Aspek	N	Min	Sisihan Piawai
Komitmen Berterusan	196	3.7092	.69645
Komitmen Normatif	196	3.7214	.72984
Komitmen Afektif	196	4.1908	.44018
Komitmen Kerja Guru	196	3.8738	.52456

Jadual 4.4. menunjukkan nilai min dan sisihan piawai bagi skor keseluruhan tahap komitmen kerja guru. Secara keseluruhannya, min komitmen kerja guru sekolah rendah jenis kebangsaan cina (SJKC) di daerah Hilir Perak ialah 3.87 dan sisihan piawai ialah 0.525 dan ditaksirkan mempunyai aras kekuatan yang tinggi. Antara aspek dalam komitmen kerja guru, komitmen afektif berada di tahap yang paling tinggi iaitu 4.19 dengan sisihan piawai 0.440. Seterusnya, komitmen normatif mencapai min 3.72 dengan sisihan piawai 0.730. Komitmen berterusan pula mempunyai min yang terendah iaitu 3.71 dengan sisihan piawai 0.696.

Analisis Hubungan Signifikan Antara Dimensi Kepimpinan Transformasi Guru Besar Dengan Tahap Komitmen Kerja Guru.

Jadual 4.5

Analisi Korelasi Pearson Antara Tahap Kepimpinan Transformasi Guru Besar Dengan Komitmen Kerja Guru-Guru Di Sekolah

Korelasi		Kepimpinan Transformasi Guru Besar	Komitmen Kerja Guru
Kepimpinan Transformasi Guru Besar	Korelasi Pearson	1	.550**
	Sig. (2-hujung)		.000
	N	196	196
Komitmen Kerja Guru	Korelasi Pearson	.550**	1
	Sig. (2-hujung)	.000	
	N	196	196

**. Korelasi signifikan pada aras 0.01 (2-hujung).

Daripada hasil analisis korelasi yang ditunjukkan dalam jadual 4.5 yang menunjukkan hubungan antara tahap kepimpinan tranformasi guru besar dengan tahap komitmen kerja guru menunjukkan hubungan positif yang kuat dan signifikan ($r = .550$, $k < 0.5$). Keputusan ini menjelaskan bahawa guru-guru di sekolah memiliki komitmen kerja yang tinggi mempunyai korelasi positif yang signifikan dengan kepimpinan transformasi yang diamalkan oleh guru besar. Oleh itu, hipotesis nol yang mengatakan 'tidak terdapat hubungan yang signifikan antara tahap kepimpinan transformasi guru besar dengan komitmen kerja guru-guru di sekolah' adalah ditolak.

Rumusan

Secara keseluruhannya analisis yang dijalankan berjaya mencapai objektif kajian dan menguji semua hipotesis yang dibentuk. Dapatan kajian ini menunjukkan pemboleh ubah yang dikaji mempunyai hubungan. Dimensi dalam pemboleh ubah bebas juga didapati memberi pengaruh terhadap pemboleh ubah bersandar.

PERBINCANGAN DAN RUMUSAN

Persoalan Kajian 1:

Dapatan kajian telah menunjukkan bahawa skor min mencapai 4.12 dengan sisihan piawai 0.596 bagi tahap kepimpinan transformasi berdasarkan persepsi guru-guru sekolah rendah jenis kebangsaan cina (SJKC) di daerah Hilir Perak. Interprestasi amalan kepimpinan transformasi guru besar berada di tahap yang tinggi dan positif. Keputusan ini bersamaan dengan dapatan kajian oleh Anak Agung Gede Agung (n.d) yang mendapati tingkah laku kepimpinan transformasi guru besar pada tahap yang tinggi. Begitu juga dengan dapatan kajian yang diperolehi oleh Fanny Silviane, Aan komariah dan Eka Prihatin (2014) yang sangat tinggi. Walau bagaimanapun, ia berbeza dengan dapatan kajian tahap kepimpinan transformasi yang dikaji oleh Nurul Jalilah (2013) yang lemah. Selain itu, terdapat kajian oleh Loy Liang Hui (2002) dan Abdul Kudus Abu Bakar (2000) yang hanya mendapat dapatan kajian bahawa tingkah laku kepimpinan transformasi guru besar berada di tahap yang sederhana.

Perbincangan di atas menunjukkan bahawa majoriti guru besar di sekolah rendah jenis kebangsaan cina (SJKC) daerah Hilir Perak telah memiliki amalan kepimpinan transformasi yang tinggi.

Persoalan Kajian 2:

Berdasarkan hasil dapatan kajian iniuntuk komitmen kerja guru terdiri daripada komitmen afektif, komitmen normatif dan komitmen berterusan. Keseluruhannya dapatan kajian komitmen guru terhadap sekolah menunjukkan tahap yang tinggi iaitu sebanyak 3.87. Dalam kajian ini, komitmen kerja guru terdiri daripada tiga aspek utama.Antaranya, komitmen afektif guru-guru berada di tahap yang paling tinggi dan purata minnya sebanyak 4.19 manakala komitmen berterusan dan komitmen normatif yang ditunjukkan oleh guru-guru pula juga berada di tahap yang tinggi. Kedua-dua aspek ini masing-masing memperolehi purata min sebanyak 3.71 dan 3.72. Justeru, dapatan kajian ini boleh dikatakan bahawa guru-guru mempunyai inisiatif dan usaha yang tinggi untuk membantu sekolah mencapai matlamat yang sama. Dengan kata lain, guru-guru mempunyai keinginan yang tinggi untuk berkhidmat di sekolah masing-masing. Guru-guru juga berasa senang hati dapat berkhidmat di sekolah kerana semua warga sekolah boleh bergaul dengan mesara dan bersatu hati.

Menurut dapatan kajian Nurulaim Asyikin Zakaria dan Suhaida Abdul Kadir (2013), nilai min tertinggi bagi komitmen normatif ialah item “sekolah ini layak menerima kesetiaan saya” iaitu sebanyak 3.82. Nilai min yang rendah pula ialah item “saya tidak berasa kewajipan untuk kekal bersama sekolah saya sekarang” iaitu sebanyak 2.64. Komitmen berterusan menunjukkan min yang tinggi ialah item “bersama sekolah ini lebih kepada satu keperluan dan juga keinginan saya sendiri” dengan min 3.74 manakala untuk min rendah ialah item “banyak terganggu jika saya mengambil keputusan untuk meninggalkan sekolah ini sekarang” dengan min 3.12. Nilai min tertinggi bagi komitmen afektif guru ialah item “sekolah ini amat bermakna secara peribadi kepada saya” dengan min 4.02. Min rendah pula terdiri daripada item “saya tidak berasa seperti “ahli keluarga” di sekolah saya dengan min 2.42.

Persoalan Kajian 3:

Dapatan daripada kajian, didapati dimensi motivasi berinspirasi kepimpinan guru besar yang paling tinggi dalam kalangan guru besar sekolah rendah yang terlibat iaitu sebanyak 4.16 (S.P. = 0.639). Seterusnya, dimensi rangsangan intelek iaitu 4.13 (S.P. = 0.673), dimensi pengaruh ideal iaitu 4.11 (S.P. = 0.657) dan akhir sekali dimensi pertimbangan individu iaitu 4.10 (S.P. = 0.587). Hasil dapatan ini bersamaan dengan dapatan oleh Loy Liang Hui (2002).

Pengkaji menggunakan ujian pekali korelasi pearson, nilai (r) bagi dimensi pengaruh ideal ialah 0.538, dimensi motivasi berinspirasi ialah 0.455, dimensi rangsangan intelek ialah 0.546 dan dimensi pertimbangan individu ialah 0.511 berdasarkan aras keyakinan, k < 0.5. Melalui analisis ini, semua hipotesis nol yang dibuat bagi menjawab persoalan kajian telah ditolak kerana terbuktinya wujud hubungan positif yang tinggi antara setiap dimensi kepimpinan transformasi guru besar dengan tahap komitmen kerja guru-guru.

RUMUSAN

Kajian yang telah dijalankan ni berjaya membuktikan bahawa terdapat hubungan kepimpinan transformasi guru besar yang kuat dan signifikan terhadap komitmen kerja guru dalam kalangan guru-guru sekolah rendah jenis kebangsaan cina (SJKC) di daerah Hilir Perak apabila kesemua hipotesis nol ditolak. Semua dimensi iaitu dimensi motivasi berinspirasi, pengaruh ideal, ransangan intelek dan pertimbangan individu pada tahap yang kuat. Tahap komitmen kerja guru-guru juga dilihat pada tahap yang tinggi. Dengan kata lain, sekiranya guru komited serta percaya kepada kecekapan guru besar maka produktiviti sekolah akan meningkat dan menjurus kepada keberkesanan sekolah.

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MEMBANGUNKAN SOSIO-EKONOMI KOMUNITI MENERUSI KEUSAHAWANAN SOSIAL: PERANAN DAN PELUANG

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Abstract: *Konsep keusahawanan sosial semakin popular di seluruh dunia. Di Malaysia, keperluan terhadap keusahawanan sosial adalah berdasarkan kepada isu-isu berkaitan komuniti seperti pembangunan ekonomi, sosial, persekitaran dan pendidikan. Komuniti perlu terus diperkasa memandangkan komuniti merupakan kumpulan individu yang membentuk dan menjadi modal insan yang berharga untuk negara ini. Budaya komuniti yang sebahagiannya lebih cenderung menunggu serta bergantung kepada bantuan pihak kerajaan umumnya dan Jabatan Kebajikan Masyarakat (JKM) khasnya perlu diubah. Dengan menghasilkan seramai mungkin usahawan sosial dalam komuniti dipercayai akan dapat meningkatkan status sosio-ekonomi komuniti tersebut sekaligus merangsang pembangunan negara dengan pantas. Oleh yang demikian, komuniti di negara ini perlu didedah dan dididik dengan konsep, peranan serta peluang keusahawanan sosial untuk mereka menggerakkan pembangunan sosial serta ekonomi menerusi platform keusahawanan sosial. Kejayaan individu yang mempelopori pendekatan keusahawanan sosial dalam menyelesaikan masalah komuniti perlu diwar-war kepada umum khususnya kepada kumpulan dalam komuniti itu sendiri supaya boleh dijadikan contoh dalam melakar kejayaan aktiviti keusahawanan sosial dalam komuniti. Melalui pendekatan keusahawanan sosial ini, pemerkasaan sosio-ekonomi komuniti diharap dapat dizahirkan. Justeru, kertas kerja konsep ini bertujuan untuk menerangkan konsep dan pendekatan keusahawanan sosial terhadap pembangunan sosio-ekonomi komuniti dengan penekanan terhadap peranan serta peluang keusahawanan sosial.*

Keywords: *(Sosio-Ekonomi, Komuniti, Keusahawanan Sosial)*

Pengenalan

Komuniti atau masyarakat, menurut Pertubuhan Kesihatan Sedunia (WHO) ialah sekumpulan individu yang tinggal dalam satu kawasan geografi yang sama melibatkan perhubungan dua hala sesama ahli, berkongsi budaya, norma dan nilai yang sama, dalam satu struktur sosial berdasarkan kepada hubungan yang telah dibina sekian lama (Kementerian Kesihatan Malaysia 2013). Pendapatan Per Kapita Sebenar, Pekali Gini dan Kadar Kemiskinan merupakan elemen dalam komponen Agihan dan Pendapatan yang merupakan salah satu komponen dalam Indeks Kualiti Hidup Malaysia yang perlu dicapai ke arah kelestarian sosio-ekonomi komuniti. Ketidaksejahteraan sosial akan memberi kesan ke atas pembangunan ekonomi sesebuah komuniti juga negara. Untuk tujuan itu, pembangunan ekonomi komuniti yang berfokus kepada kemakmuran yang dikecapi oleh golongan dalam komuniti dari sudut skala aktiviti ekonomi yang meningkat dan kewujudan peluang-peluang pekerjaan yang menyumbang kepada tahap guna tenaga penuh negara perlu dititikberatkan. Sekiranya tahap tersebut dapat dicapai, isu pengangguran dalam komunti dipercaya dapat diminimumkan sekaligus membantu mengurangkan isu komuniti berpendapatan rendah.

Sebelum ini, selari dengan Matlamat Pembangunan Milenium untuk mengurang dan mengawal kadar kemiskinan serta kebuluran di mana Malaysia telah menetapkan beberapa sasaran dalam Rancangan Malaysia ke Sepuluh (2015-2015) yang antara lainnya bertujuan untuk meningkatkan pendapatan purata bagi 40 peratus golongan isirumah dalam komuniti, yang berpendapatan rendah pada kadar RM1400 pada tahun 2009 kepada RM2300 pada tahun 2015 (Siti Khadijah dan Roslan 2015). Usaha ini diteruskan menerusi Rancangan Malaysia Kesebelas (2016-2020) dengan fokus untuk meningkatkan Taraf Isi Rumah B40 Ke Arah Masyarakat Kelas Menengah dengan membangunkan perusahaan berasaskan komuniti dan sosial (*Social Enterprise*) (Jabatan Kebajikan Masyarakat 2017). Sehubungan dengan itu, golongan pengusaha atau usahawan dalam komuniti perlu berperanan membantu merealisasikan hasrat tersebut memandangkan mereka adalah agen aktif dalam ekonomi yang perlu secara berterusan membuat pembaharuan dan inovasi dalam sesuatu kegiatan ekonomi yang secara langsung atau tidak langsung akan turut memberi impak kepada peningkatan sosio-ekonomi komunitinya.

Selain menumpu kepada pembangunan ekonomi komuniti menerusi pendekatan keusahawanan; satu lagi cabang dalam keusahawanan iaitu keusahawanan sosial perlu diwar-war, diperkenal serta dibudayakan dalam kalangan warga komuniti. Melalui pendekatan keusahawanan sosial ini, pemerkasaan sosio-ekonomi komuniti diharap dapat dizahirkan ekoran budaya komuniti yang sebahagiannya lebih cenderung menunggu serta bergantung kepada bantuan pihak kerajaan umumnya dan Jabatan Kebajikan Masyarakat (JKM) khasnya; dapat diubah. Komuniti boleh turut sama dilibatkan dalam aktiviti atau projek keusahawanan sosial yang dipimpin oleh innovator sosial yang berkecekapan. Namun, kegiatan keusahawanan sosial di Malaysia masih belum mendapat perhatian yang menyeluruh daripada kerajaan dan masyarakat secara umum. Rentetan itu, amat kurang liputan berkaitannya dibuat di peringkat nasional sementelah kejayaan individu atau perusahaan yang bercorak keusahawanan sosial juga masih lagi samar-samar untuk ditonjolkan (Hariyaty 2014).

Hakikatnya, kemunculan lebih ramai usahawan sosial yang menjadi inovator dalam menyelesaikan masalah komuniti adalah amat perlu agar beban tersebut tidak hanya diletakkan di bahu kerajaan dan badan kebajikan masyarakat semata-mata. Bagi menzahirkan

hasrat tersebut, pendidikan dilihat sebagai satu platform yang berupaya menukar harapan tersebut kepada realiti (Wahid et al. 2018). Namun, ia tidak semudah yang diungkap sekiranya kesedaran, perancangan, perlaksanaan, pemantauan dan penilaian keberkesanan setiap aktiviti atau pendekatan keusahawanan sosial yang diusahakan oleh usahawan sosial dalam komuniti perlu ada dan dibuat dengan baik. Oleh yang demikian, kertas kerja konsep ini adalah bertujuan untuk membincangkan konsep usahawan dan keusahawanan sosial serta peranan juga peluang keusahawanan sosial dalam pembangunan sosio-ekonomi komuniti di Malaysia.

Keusahawanan Dan Usahawan Sosial

Mutakhir ini, antara cabang ilmu dan aliran baru yang berkembang dalam disiplin keusahawanan ialah keusahawanan sosial yang turut dikenali sebagai keusahawanan rakyat atau keusahawanan sivik. Keusahawanan sosial adalah satu pendekatan keusahawanan yang usianya masih di peringkat bayi dan berkembang seiring dengan pendidikan keusahawanan itu sendiri (Alvord et al., 2002; Shukla, 2006; Weerawardena dan Mort, 2006; Gatchalian, 2010) walaupun amalan berkaitannya dilaporkan telah wujud ratusan tahun dahulu (Bornstein 2007; Hariyaty 2011). Pendekatan dan nilai keusahawanan yang diketengahkan menerusi keusahawanan sosial ini amat besar ertinya terhadap pertumbuhan modal insan yang dinamik, perubahan sosial dan juga ekonomi sesebuah negara (Alvord et al., 2002; Mair dan Marti, 2005; Bornstein, 2004, 2007; Bessant dan Tidd, 2007; Malecki, 2007; Nicholls dan Cho, 2008; Mohammad Reza et al., 2010).

Menurut Alvord et al. (2002), keusahawanan sosial ialah penggabungan perusahaan perniagaan dengan impak sosial. Para usahawan akan menggunakan kemahiran perniagaan dan pengetahuan mereka untuk mencipta perniagaan yang dapat menyempurnakan matlamat sosial sebagai tambahan kepada perdagangan yang berdaya maju. Organisasi bukan untung pula boleh mewujudkan subsidiari perniagaan dan menggunakannya untuk menjana guna tenaga atau hasil yang boleh dimanfaatkan untuk tujuan sosial. Selain itu, organisasi yang berasaskan keuntungan turut boleh berkecimpung dalam keusahawanan sosial dengan menderma sebahagian keuntungan atau menganjurkan aktiviti-aktiviti untuk mencapai matlamat sosial. Inisiatif seperti ini melibatkan penggunaan sumber-sumber yang dijana daripada aktiviti perniagaan yang berjaya untuk memajukan dan mengekalkan aktiviti sosial (Alvord et al., 2002; Verma 2009).

Tan et al (2005) pula merumuskan bahawa usahawan sosial ialah individu yang menepati lima syarat berikut iaitu; (i) menggabungjalin dan menggunakan kemahiran keusahawanan untuk menyelesaikan masalah masyarakat, (ii) melibatkan keseluruhan atau sebahagian masyarakat dalam proses, aktiviti atau projek tersebut, (iii) aktiviti, proses atau projek yang diusahakan mempunyai tempoh masa, (iv) impak daripada aktiviti, proses atau projek tersebut mestilah sebahagian atau keseluruhannya untuk masyarakat, (v) membuat inovasi dan mengambil risiko. Jelasnya, perkara yang membezakan usahawan sosial dengan usahawan komersial ialah matlamat dan operasi mereka. Keusahawanan sosial yang diceburi lebih bermotivasikan masyarakat dan operasi yang dilaksana juga adalah bertunjangkan masyarakat.

Dari perspektif Islam, keusahawanan telah terbukti sebagai satu aktiviti yang strategik sejak zaman Rasulullah SAW dan merupakan sumber utama bagi pembangunan sosio-ekonomi ummah. Islam sebagai satu cara hidup yang syumul, amat menggalakkan umatnya yang berkecimpung dalam keusahawanan agar memiliki ciri dan sifat terpuji dengan tidak semata-mata memikir akan keuntungan kewangan serta material untuk kepentingan peribadi.

Konsep keusahawanan sosial yang lebih mengutamakan kebajikan dan kemaslahatan komuniti berbanding kepentingan peribadi telah terlebih dahulu telah dianjrkan oleh Islam serta boleh diteladani daripada himpunan sirah Rasulllah SAW dan para sahabat Baginda. Sehubungan itu, usahawan muslim masa kini terutamanya yang beragama Islam perlu menilai apakah sumbangan yang boleh mereka hulurkan kepada masyarakat dan tidak memasang niat semata-mata untuk meraih laba yang berlipat ganda. Matlamat utama harus difokuskan untuk mendapat keberkatan dan keredhaan dari Allah SWT (Rohami, 2013).

Usahawan muslim turut disaran agar mengamalkan konsep Ubudiyah iaitu nilai dan ihsan yang menjadi pegangan untuk mengelak salah laku dan sentiasa berbuat baik (Ab Mumin & Suhaili, 2009). Usahawan muslim juga dituntut untuk berkhidmat bagi memenuhi keperluan manusia dan ikhlas menjalankan tanggungjawab kepada masyarakat. Hal ini dijelaskan oleh sebuah hadis yang bermaksud:

"Diceritakan daripada Salim daripada bapanya bahawa Rasullullah bersabda:"Setiap muslim adalah saudara seorang muslim yang lain di mana dia tidak boleh menzaliminya dan tidak pula menyerahkan saudaranya tadi kepada musuhnya (kafir). Barangsiapa yang memenuhi hajat saudaranya, maka Allah akan melepaskannya daripada kesukaran di hari akhirat, dan barangsiapa yang memelihara keaiban saudaranya di dunia maka Allah akan memelihara keaibannya di akhirat."

(Sunan al-Tarmizi, Kitab al-Hudud, Bab Ma jaa fi al-Sitr 'ala al-
Muslim, no. hadis 1346 dalam Ab Mumin Ab Ghani & Suhaili Sarif, p.7)

Peranan Dan Peluang Membangunkan Sosio-Ekonomi Komuniti Menerusi Keusahawanan Sosial

Usahawan sosial memiliki ciri yang hampir sama seperti usahawan tradisional di mana mereka mahir membuat transformasi ke atas sesuatu perniagaan melalui kemahiran berniaga yang dimiliki. Kelebihannya, usahawan sosial bertindak sebagai agen perubahan kepada masyarakatnya (Mair dan Marti, 2005). Seseorang usahawan sosial akan mengambil apa juga peluang dan kesempatan yang terbuka, yang mana tidak disedari oleh orang lain, untuk memperbaiki sistem masyarakat, mengilhamkan pendekatan baru dan juga memikirkan cara penyelesaian baru untuk kesejahteraan masyarakat sekitarnya. Jika seorang usahawan perniagaan berjaya membuka satu perniagaan baru, seorang usahawan sosial akan memikirkan satu penyelesaian baru kepada sesuatu masalah sosial dan melaksanakannya bagi memperbaiki lagi keadaan masyarakat (McConachie dan Simpson, 2003; Mair dan Marti, 2005; Sarimah Hanim dan Abd. Rashid, 2008).

Antara peranan penting keusahawanan sosial terhadap masyarakat dan negara ialah keupayaannya menghapuskan fenomena kemiskinan dan kelaparan yang ekstrem (Alvord et al., 2002; Mair dan Marti, 2005; Bornstein, 2007; Mohammad Reza et al., 2010), memperjuangkan hak masyarakat untuk mendapatkan pendidikan asas secara universal (Alvord et al., 2002; Mair dan Marti, 2005; Bornstein, 2007), memperjuangkan kesaksamaan gender dan pada masa yang sama memperkasakan wanita (Mair dan Marti, 2005; Bornstein, 2007), mengurangkan angka kematian kanak-kanak melalui peningkatan sistem penjagaan, kesihatan, dan pendidikan (Mair dan Marti, 2005; Bornstein, 2007), meningkatkan penjagaan kesihatan para ibu (Mair dan Marti, 2005; Bornstein, 2007), memerangi HIV/AIDS (Mair dan Marti, 2005; Bornstein, 2007) serta malaria dan wabak penyakit lain (Mair dan Marti, 2005; Bornstein, 2007); dan meningkatkan kesedaran terhadap pemeliharaan alam sekitar (Mair dan Marti 2005; Verma 2009).

Sungguhpun keusahawanan sosial merupakan salah satu cabang dalam keusahawanan yang masih baru, namun potensi bidang ini untuk diceburi sebagai suatu kerjaya pilihan utama mahupun kedua, tidak boleh dikesampingkan. Kejayaan nama-nama besar seperti seperti Prof. Dr. Muhammad Yunus (Pengasas Grameen Bank di Bangladesh), Pamela Hawley (Pengasas UniversalGiving.com. di Amerika Syarikat), Tan Sri Syed Mokhtar Syah bin Syed Nor Al-Bukhary (Pengasas Yayasan Al-Bukhary di Malaysia) Prof. Dato' Sukor bin Kasim (Pengasas Amanah Ikhtiar Malaysia), Dr. Maria Montessori (Pengasas Montessori di Itali) dan Florence Nightingale (Jururawat Moden di U.K; rata-rata pernah didengar oleh umum. Nama individu seperti yang tertera di atas ialah usahawan sosial yang sering dikaitkan sebagai inovator sosial dalam masyarakat sungguhpun sumbangan mereka menerusi lensa keusahawanan sosial masih belum difahami dengan jelas oleh sesetengah pihak. Ramai juga yang masih belum mengetahui apakah yang telah disumbangkan oleh usahawan sosial tersebut kepada masyarakat dan pendekatan yang menjadi tulang belakang kepada komitmen mereka dalam membantu mengubah landskap masyarakat.

Jika diimbau kembali sirah keusahawanan Islam yang semangnya mengamalkan pendekatan keusahawanan sosial ini, Rasulullah SAW sendiri adalah contoh usahawan sosial yang paling agung. Kejujuran dan keikhlasan baginda telah berupaya melipatgandakan keuntungan dengan objektif utama iaitu mendapatkan keredhaan Allah. Selain itu, antara tokoh-tokoh usahawan Islam yang tersohor dengan keusahawanan sosialnya ialah Sayyidatina Khadijah, Saydina Uthman bin Affan, Abdul Rahman 'Auf, Abu Talhah dan Saa'd ibn Rabi'. Sayyidatina Khadijah merupakan usahawan wanita yang berjaya dalam perniagaan dan penyumbang utama kepada perjuangan Rasullullah demi menegakkan Islam. Begitu juga dengan Saydina Uthman bin Affan dan Abdul Rahman 'Auf yang turut cemerlang dalam perniagaan. Di samping aktif dalam aktiviti perniagaan, mereka juga aktif memberi sumbangan material bagi menyokong perjuangan Islam ketika itu.

Bagi membantu perjuangan menegakkan syiar Islam, Saiyidina Uthman pernah menderma 300 tunggangan dengan muatan, sementara Abdul Ramhan 'Auf pernah menderma 100 tunggangan dengan muatan (Ab Mumin & Suhaili, 2009). Semasa kemelesetan ekonomi pula, Saydina Uthman pernah menderma makanan sejumlah muatan 1000 ekor unta padahal ketika itu terdapat pedagang-pedagang lain yang sanggup membeli bekalan tersebut pada harga lima kali lebih tinggi (Ab Mumin & Suhaili, 2009). Ini membuktikan bahawa para usahawan zaman tersebut amat menitikberatkan kepentingan masyarakat, memelihara kebajikan dan kesejahteraan umum dalam setiap aktiviti yang dibuat sebagaimana yang dianjurkan oleh agama Islam itu sendiri. Sebagai usahawan sosial, bantuan yang dihulur kepada masyarakat tidak semestinya dalam bentuk kewangan semata-mata, malah ia boleh juga dalam bentuk bukan kewangan (Rohami, 2013). Justeru, semua usahawan di Malaysia perlu menyumbang tenaga, idea dan material bagi membangunkan taraf hidup dan sosial masyarakat di negara ini bersesuaian dengan konsep keusahawanan sosial yang diketengahkan.

Selain untuk komuniti, keusahawanan sosial juga mampu menyediakan peluang untuk peningkatan diri individu (Sarimah Hanim dan Abd. Rashid, 2008). Jika dilihat dari sudut pembinaan modal insan untuk keperluan negara, kualiti yang wujud dalam diri usahawan sosial perlu dibudayakan kepada pelajar. Ini adalah kerana usahawan sosial dilihat sebagai individu yang mempunyai penyelesaian inovatif kepada masalah sosial yang sedang dihadapi oleh masyarakat. Mereka juga merupakan individu yang merangsangkan kemajuan ekonomi dengan mencari cara baru atau cara yang lebih baik untuk melaksanakan sesuatu. Apa yang menarik berkaitan usahawan sosial ialah mereka merupakan pemimpin keusahawanan sosial

yang terdiri daripada manusia biasa yang membuat perkara-perkara yang luar biasa (La Barred dan Fishman et al., 2001; Morse dan Dudley, 2002).

Ke arah membantu merealisasikan hasrat negara untuk melahirkan modal insan kelas pertama dan seterusnya melahirkan lebih ramai usahawan sosial dalam komuniti, maka institusi pendidikan dan Jabatan Kebajikan Masyaraat boleh bergabung tenaga serta kepakaran untuk memupuk budaya keusahawanan sosial dalam kalangan komuniti. Ini adalah bertepatan dengan 'nature' IPT itu sendiri sebagai organisasi yang sistematik dan formal dari aspek kurikulum dan pentadbiran dengan menawarkan program akademik sebagai menyediakan pelajar yang mampu mengurus dan mengaplikasikan pengetahuan dalam tindakan (Collins et al., 2004) serta tenaga kerja profesional yang memiliki kemahiran, jati diri dan daya saing yang tinggi (Kementerian Pendidikan Malaysia, 2001; Rohaila, 2007) bagi tujuan membantu negara mengatasi kemelut sosial dan ekonomi. Secara langsung, IPT juga berperanan menyumbang inovasi dalam ekonomi dan sosial untuk membangunkan modal insan berpengetahuan dan berpengalaman (Kementerian Pendidikan Malaysia, 2001). Manakala Jabatan Kebajikan Masyarakat pula boleh merancang kolaborasi strategik dengan Kementerian Pendidikan Malaysia untuk menghebahkan peluang keusahawanan sosial untuk diterokai oleh komuniti menerusi program-program anjuran mereka seperti program khidmat bantu di rumah (Home Help Service), Direktori Pertubuhan Sukarela (PSK), Pemberian Geran kepada Pertubuhan Sukarela Kebajikan, Program Organisasi Komuniti dan lain-lain.

Bagi menggalakkan ramai individu menceburi keusahawanan sosial sebagai pendekatan untuk membangunkan sosio- ekonomi komuniti setempat, teori Diffusi Inovasi yang diperkenalkan oleh Rogers pada tahun (1962) boleh dijadikan panduan dalam merangka strategi awal penceburan keusahawanan sosial. Antaranya ialah Teori Difusi Inovasi yang diperkenalkan oleh Everett M. Rogers pada tahun 1962 (Rogers 2003). Perubahan tingkah laku berdasarkan teori tersebut pernah diaplikasi oleh Kementerian Kesihatan Malaysia pada tahun 2013 dalam garis panduan memperkasa komuniti untuk lebih menghargai kesihatan dan mengamalkan gaya hidup yang sihat (Kementerian Kesihatan Malaysia 2013).Teori yang sama juga wajar diaplikasi untuk mengetengahkan konsep keusahawanan sosial yang sinonim dengan aktiviti berinspirasikan inovasi dalam komuniti. Namun, tahap perubahan tingkah laku dalam komuniti sama ada cenderung untuk berubah atau sebaliknya adalah tidak sama kerana ia bergantung kepada perbezaan individu dalam komuniti tersebut. Teori Diffusi Inovasi menyenaraikan lima kategori kumpulan penerima pembaharuan (inovasi) atau sebarang pendekatan baru yang cuba diketengahkan iaitu agen perubahan, penerima awal, majoriti awal, majoriti akhir dan *laggards*.

Bagi menggerakkan keusahawanan sosial dalam masyarakat, usahawan sosial sebagai agen perubahan adalah merupakan golongan pencetus idea keusahawanan sosial sekaligus individu paling awal yang memperkenalkan inovasi untuk membuat perubahan sosial yang memberi impak kepada pertumbuhan sosio-ekonomi komuniti. Mereka berani mengambil risiko dan melakukan inovasi dalam sesuatu tempoh masa untuk menjayakan projek sosial dan berorientasikan pasaran. Mereka akan memperkenalkan projek keusahawanan sosial tersebut kepada komuniti. Kumpulan penerima awal pula merupakan kumpulan komuniti awal yang akan menerima sebarang projek baru atau baharu yang dicetuskan oleh usahawan sosial. Usahawan sosial perlu merangka strategi yang baik untuk menarik golongan tersebut agar menerima pendekatan atau projek keusahawanan sosial yang diketegahkan. Panduan yang lengkap perlu dibekalkan kepada mereka mengenai peranan atau langkah-langkah yang perlu mereka lakukan. Kumpulan majoriti awal pula merupakan kumpulan yang akan menerima perubahan setelah inovasi sosial yang cuba diketengahkan oleh usahawan sosial

didapati berjaya. Untuk tujuan tersebut, usahawan sosial perlu mengetengahkan contoh projek keusahawanan sosial yang telah berjaya atau agenda perubahan sosial yang telah berjaya dicapai menggunakan pendekatan keusahawanan sosial.

Sementara kumpulan majoriti akhir pula ialah kumpulan yang kebiasaannya ragu-ragu untuk berubah. Jika didapati ramai usahawan sosial telah berjaya dalam komunitinya, barulah beliau akan mencuba pendekatan tersebut untuk dirinya pula. Manakala kumpulan *laggards* merupakan kumpulan yang agak konservatif atau terkebelakang dalam membuat perubahan. Mereka cenderung untuk mengekalkan sesuatu keadaan yang sedia ada atau yang sudah menjadi kelaziman mereka. Mereka rela berada ditakuk lama daripada membuka ruang untuk merebut peluang keusahawanan sosial untuk membangunkan ekonomi diri juga komuniti. Oleh yang demikian, pelbagai strategi boleh dirancang untuk dilaksana oleh pelbagai pihak ke arah mengetengahkan pendekatan keusahawanan soisal untuk mempertingkatkan sosio-ekonomi komuniti dengan mengambilkira perbezaan kumpulan individu dalam komuniti menurut teori tersebut.

Faktor-faktor yang mempengaruhi pemilihan kerjaya bidang keusahawanan secara umum juga boleh dijadikan panduan dalam usaha memupuk minat komuniti untuk berkecimpung dalam keusahawanan sosial. Antara faktor yang mempengaruhi pemilihan kerjaya keusahawanan ialah faktor keuntungan dan pendapatan lumayan, kepuasan dan kecemerlangan dalam hidup, faktor persekitaran serta lain-lain (Astin 1999; Norfadhilah dan Halimah 2010; Heiko dan Lautenschläger 2011). Di luar sana, tidak mustahil terdapat sebilangan kecil individu yang sedang membuat sumbangan menerusi kerjaya mereka dan ia bukan sekadar kerjaya yang bertujuan ‘membantu’ namun ia lebih kepada keinginan untuk membuat perubahan dalam masyarakat. Sebagai contoh individu yang mahu membuat perubahan dalam masyarakat ialah; seorang akauntan yang bekerja untuk badan bukan berorientasi keuntungan seperti NGO, penyelidik bidang sains yang bekerja dalam persekitaran kanak-kanak untuk mengatasi masalah penyakit yang sering dialami kanak-kanak; pegawai pembuat dasar yang menyalurkan nasihat kepada kerajaan berkenaan isu-isu dasar sosial; jurutera perisian yang membina teknologi untuk mengurangkan kesan rumah hijau, pengurus projek yang bekerja untuk agensi pembangunan antarabangsa; penyelidik sosial yang bekerja untuk universiti; pengurus Teknologi Maklumat atau IT yang bekerja untuk badan kesihatan dan kebajikan, pengurus kanan dalam perkhidmatan kerajaan yang memantau salah laku dan jenayah siber serta pengurus yang bekerja untuk kebajikan misalnya, membantu golongan gelandangan.

Manakala sebahagian ahli komuniti yang lain mungkin ada yang berminat untuk membuat perubahan kepada masyarakat dengan membuat sumbangan dalam industri. Perkara yang sama boleh juga rifikir dan dirancang oleh usahawan sosial. Mereka boleh secara langsung menubuhkan perusahaan yang bermotif menyelesaikan masalah sosio-ekonomi komuniti dengan mencipta peluang untuk ahli komuniti tersebut turut serta membangunkan sosio-ekonomi mereka dalam sesuatu tempoh masa yang ditetapkan. Misalnya, usaha yang telah dibuat oleh salah seorang pelakon di Malaysia iaitu Saudara Fizo Omar dengan melibatkan golongan ibu tunggal dan belia dalam projek perniagaan kiosk burger yang beliau miliki adalah salah satu pendekatan keusahawanan sosial yang antara lain tujuannya ialah untuk membantu menjana pendapatan untuk golongan dalam komuniti. Golongan dalam komuniti perlu sama-sama dilibatkan dalam usaha membantu mengurangkan masalah sosio-ekonomi komuniti tersebut. Di sini kemahiran keusahawanan perlu diaplikasi oleh usahawan sosial dalam merangka dan melaksana aktiviti atau projek keusahawanan yang diusahakan serta keberanian mendepani risiko perlu ada dalam diri usahawan terbabit. Keusahawanan

sosial juga merupakan salah satu cabang kerjaya keusahawanan yang begitu menarik dan mencabar untuk diceburi.

Namun, aspirasi kerjaya keusahawanan sosial perlu dibezakan dengan kerjaya sebagai pekerja sosial supaya tidak wujud pertindanan dalam kefahaman umum berkaitan kedua-dua kerjaya tersebut. Kerjaya sebagai usahawan sosial mahupun kerjaya sebagai pekerja sosial kedua-duanya didapati bertujuan menyelesaikan masalah dalam masyarakat, namun pendekatan yang digunakan adalah berbeza. Seorang pekerja sosial ialah individu yang terlibat dalam pekerjaan berbentuk penglibatan profesional dengan penggunaan kepakaran yang lebih penting berbanding altruism. Majoriti pekerja sosial terlibat dengan kerja kebajikan sosial berbentuk pemulihan serta pengendalian aktiviti berkaitan membantu manusia mencapai tahap kefungsian sosial yang efektif (Samir & Winny 2009). Berbeza dengan kerjaya usahawan sosial yang sudah pasti menggabungkan kemahiran keusahawanan yang dimiliki untuk menyelesaikan masalah sosial melalui inovasi dan pengambilan risiko dalam satu tempoh masa (Tan et al. 2005; Hariyaty et al. 2012).

Bagi merealisasikan peningkatan sosio-ekonomi komuniti menerusi keusahawanan sosial, disiplin keusahawanan sosial itu sendiri perlu diperkenalkan menerusi platform pendidikan. Pendidikan adalah salah satu faktor utama bagi melahirkan masyarakat yang berkualiti untuk membangunkan negara (Mohamed Khaled 2009). Menurut Palmisano (2001), pendidikan merujuk kepada institusi sosial yang bertanggungjawab menyampaikan ilmu dan pengetahuan kepada masyarakat selain menjadi saluran utama untuk membawa transformasi kepada masyarakat. Pelajar yang bergiat cergas dalam aktiviti keusahawanan di IPT mutakhir ini bukan sahaja mahu memenuhi permintaan pasaran kerja dengan menawarkan kemahiran mereka di pasaran dan membuat keuntungan semata-mata, malah ada dalam kalangan mereka yang mahu membuat perubahan. Oleh yang demikian apakah langkah yang boleh dilakukan oleh pihak yang berkepentingan untuk mengajar pelajar membentuk perusahaan sosial yang berdaya tahan dan menguntungkan? Apakah bentuk kelas, kursus atau program serta pengalaman yang perlu ditawar dan disampaikan? Sekiranya graduan mahu berkecimpung dalam perusahaan sosial selepas tamat pengajian, apakah wujud insentif atau galakan daripada pihak yang berwajib untuk mereka merealisasikan perkara tersebut?

Ironinya, pelajar tidak perlu menunggu sehingga usia mereka mencecah 40 atau 50an untuk memulakan perniagaan atau perusahaan sosial meskipun ada pepatah Barat yang menyatakan bahawa kehidupan bermula pada usia 40 tahun. Pelajar yang merupakan sebahagian daripada ahli dalam komuniti perlu didorong untuk segera memulakan projek keusahawanan sosial dari dalam bilik kuliah keusahawanan yang pertama sehinggalah mereka keluar dari kampus sebagai guna tenaga. Mereka perlu mula membuat pilihan kerjaya yang bermakna dari awal pengajian. Malahan, sebahagian pakar keusahawanan ada menyatakan bahawa usia bukanlah pengukur kejayaan penceburan keusahawanan. Pelajar mungkin akan mula menceburi keusahawanan sosial sebaik mempelajari kemahiran berkaitan keusahawanan sosial tersebut dan dapat mengenal pasti peluang yang baik untuk memulakan perusahaan sosial mereka. Oleh yang demikian, pelajar yang berminat dengan kerjaya keusahawanan sosial perlu dikenal pasti dan mereka harus diberi dorongan dan sokongan untuk terus mencipta kerjaya dalam bidang tersebut. Di sini, kolaborasi antara tenaga akademik, pihak pengurusan fakulti dan enterpris sosial adalah penting bagi memanfaatkan minat pelajar terhadap keusahawanan sosial. Galakan berterusan pelru disalur kepada pelajar terbabit agar minat terhadap kerjaya keusahawanan sosial tidak luntur dan dapat dizahirkan kepada kerjaya yang lestari.

Apabila pelajar dan fakulti yang menawarkan program berkaitan keusahawanan sosial semakin komited kepada aktiviti juga program keusahawanan sosial mereka, secara langsung dan tidak langsung topik berkaitan keusahawanan sosial boleh dan diyakini dapat dintegrasikan merentasi kurikulum. Keusahawanan sosial boleh diajar secara umum kepada semua pelajar baik di sekolah rendah, menengah atau IPT menerusi kurikulum yang sistematik, tepat dan kerja kursus atau praktikum yang melibatkan kemahiran keusahawanan untuk kemaslahatan komuniti. Topik dan kes-kes berkaitan keusahawanan sosial boleh disepadukan dalam aliran utama kurikulum. Selain itu, topik berkaitan keusahawanan sosial boleh mula diperkenal dan diajar merentasi kampus misalnya, di kampus-kampus kejuruteraan, kewartawanan, kejururawatan, reka fesyen dan sebagainya bagi menggalakkan kemunculan lebih ramai usahawan sosial dari pelbagai bidang. Keusahawanan sosial perlu diperkenal dan diajar merentasi disiplin juga bidang supaya pelajar boleh memanfaatkan pengetahuan serta kemahiran berkaitan dengannya untuk mula bekerja sendiri dengan jiwa dan pemikiran usahawan sosial. Keusahawanan sosial bukanlah bidang perniagaan sosial semata-mata malah ia merupakan pemikiran yang meliputi set kemahiran yang boleh diaplikasi kepada sebarang disiplin ilmu. Fakulti perniagaan dan keusahawanan mungkin boleh memikirkan kaedah juga mekanisme jalinan kerjasama dengan fakulti bukan perniagaan bagi membina idea-idea awal berkaitan bagaimana untuk mengintegrasi serta mengajar keusahawanan sosial merentasi disiplin.

Kebanyakan program keusahawanan yang melibatkan komuniti cenderung mendedahkan kejayaan eksekutif dan pemilik perniagaan. Seiring dengan itu, program-program anjuran komuniti yang berfokus kepada keusahawanan amnya dan keusahawanan sosial khususnya perlu turut membawa konsep tersebut dengan kaedah yang lebih istimewa iaitu melibatkan usahawan sosial yang autentik. Kaedah terbaik untuk melibatkan komuniti dengan keusahawanan sosial ialah dengan membawa masuk usahawan sosial sebenar yang berjaya masuk ke dalam kelompok komuniti unuk berkongsi pengalaman kejayaan keusahawanan mereka. Komuniti perlu diberi peluang bertemu dan berkenalan dengan usahawan sosial tempatan secara bersemuka. Model peranan atau ‘role model’ sebenar ini mampu menyuntik semangat keusahawanan sosial dalam diri ahli komuniti dengan berkongsi cerita suka dan duka serta pencapaian mereka dalam bidang keusahawanan sosial yang diceburi. Selain itu, wakil komuniti yang berminat untuk menceburi keusahawanan sosial juga boleh diberi peluang untuk bertemu dengan usahawan sosial tempatan menerusi projek lawatan ke syarikat yang diterajui oleh usahawan berjaya tersebut dan mempelajari apa yang membuatkan usahawan tersebut berjaya serta apakah yang telah disumbangkannya kepada masyarakat.

Kesimpulan

Bersesuaian dengan matlamat negara yang sedang giat berusaha mengubah keadaan masyarakat daripada masyarakat yang bergantung kepada kerajaan kepada masyarakat usahawan yang berdikari dan berdaya maju, maka pihak kerajaan perlu menyalur lebih galakan dan aktif menyaran agar komuniti mampu mewujudkan peluang pekerjaan sendiri. Sementara itu, ahli komuniti pula tidak perlu lagi mengharap kepada bantuan orang lain untuk menyara ekonomi diri dan keluarga. Pertambahan bilangan usahawan yang berkecimpung dalam bidang keusahawanan umumnya dan keusahawanan sosial khususnya dapat membuka serta menawarkan lebih banyak peluang pekerjaan kepada komuniti di Malaysia. Sedikit demi sedikit, budaya makan gaji akan dapat dikurang dan dihakis dalam masyarakat serta

memungkinkan kewujudan usahawan sosial dalam kalangan graduan yang berkualiti di pasaran kerja serta komuniti.

Maka, dalam usaha memberi kesedaran, membentuk pengetahuan dan memutikkan kecenderungan terhadap kerjaya keusahawanan sosial dalam kalangan komuniti di negara ini, faktor pendorong dan penarik kepada kerjaya keusahawanan tersebut perlu dikenal pasti serta dipertingkatkan. Pelajar sebagai aset komuniti yang bakal mewarnai dunia pekerjaan atau guna tenaga negara suatu masa nanti perlu diberikan pendedahan terhadap aspirasi kerjaya keusahawanan sosial yang mencukupi dan sewajarnya agar mereka boleh memilih bidang tersebut selepas tamat pengajian serta tidak hanya mengharap kepada makan gaji semata-mata. Aspirasi kerjaya keusahawanan sosial adalah tidak mustahil dapat dibentuk menerusi pendidikan, dengan menyediakan kurikulum dan ko-kurikulum yang bersesuaian serta kaedah penyampaian (pengajaran dan pembelajaran) yang berkesan. Diharapkan agar pencerahan berkaitan peranan dan peluang keusahawanan sosial dalam meningkatkan sosio-ekonomi komuniti ini berupaya membuka ruang untuk diskusi yang lebih mendalam berkaitan bidang ini sekaligus memupuk kecenderungan lebih ramai ahli komuniti di negara ini untuk menjadikannya sebagai aktiviti untuk melonjakkan lagi tahap sosio-ekonomi komuniti dan negara.

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KEPEKAAN NOMBOR DALAM KALANGAN MURID SEKOLAH RENDAH

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Abstrak: *Kajian ini bertujuan untuk mengenal pasti tahap kepekaan nombor murid dalam pelbagai cabang matematik. Selain itu, kelemahan murid dalam komponen kepekaan nombor turut dikenal pasti. Sampel kajian terdiri daripada 120 orang murid Tahun Enam di sebuah sekolah di daerah Tangkak. Kajian ini menggunakan pendekatan kuantitatif. Dua instrumen telah digunakan, iaitu instrumen ujian kepekaan nombor, dan protokol temubual berstruktur. Data dikumpulkan melalui 25 item ujian kepekaan nombor. Item ujian dibina mengikut komponen-komponen kepekaan nombor. Data diperoleh melalui pemeriksaan soalan ujian dan telah dianalisa menggunakan analisis deskriptif. Dalam kajian ini, keupayaan pengiraan oleh murid dinilai melalui pemahaman, strategi yang dipamerkan dan kejelasan langkah-langkah penyelesaian di dalam soalan ujian. Hasil analisis mendapati bahawa tahap kepekaan nombor dalam kalangan murid Tahun Enam adalah pada tahap yang sederhana dengan purata 64.80%. Secara puratanya seorang murid hanya mampu menjawab 16 soalan dengan betul daripada 25 soalan ujian yang diberikan. Markah yang paling rendah ialah 32% iaitu hanya 8 item yang dijawab dengan betul manakala markah yang paling tinggi ialah 84%, iaitu 21 soalan yang dijawab dengan betul. Hasil kajian mendapati komponen kepekaan nombor yang lemah bagi murid Tahun Enam ini adalah komponen nombor yang kelima iaitu mengira dengan menggunakan pelbagai strategi. Kajian menunjukkan responden tidak dapat membuat justifikasi matematikal secara sesuai, tidak memahami konsep pecahan dan perpuluhan serta operasi matematik dan juga tidak menggunakan strategi yang berkesan untuk menangani situasi numerikal.*

Kata Kunci: *Kepekaan nombor,Ujian, Standard algoritma*

Abstract: *The purpose of this study is to identify the level of number sense among student in various mathematical branches. Additionally, students' weakness in the number sense components are also identified. The sample of the study consists of 120 Year Six pupils at a school in Tangkak district. This study uses quantitative approaches. Two instruments have been used, namely number sense test instruments, and structured interview protocols. Data is collected through 25 numbers sense test items. The test items are develop according to the number sense components. Data obtained through the test questions were analysed using descriptive analysis. In this study, pupils' ability to calculate were assessed through their understanding, the strategies they presented and the clarity of the solutions in the test questions. The result of the analysis found that the level of number sense for the respondent's ability was moderate with an average of 64.80%. In average, respondents are able to*

accurately answer 16 questions out of 25 test questions given. The lowest score is 32%, which means only 8 items are answered correctly whereas the highest score is 84%, that is 21 questions are correctly answered. Study shows that respondents cannot make suitable mathematical justification, do not understand fractional, decimal concepts and mathematical operations and also do not use effective strategies to handle numerical situations.

Keywords: *Number sense, Test, Algorithm standard.*

Pengenalan

Pendidikan Matematik telah mengalami satu perubahan dalam kurikulum matematik bermula daripada kemahiran asas matematik, latih tubi kefahaman konsep sehinggalah kepada penyelesaian masalah. Selain itu, dalam Bidang Keberhasilan Utama Negara (NKRA), bidang pendidikan juga telah memberikan penekanan kepada penguasaan asas matematik bermula dari sekolah rendah di mana sub bidang yang kedua telah menyatakan bahawa kepentingan murid sekolah rendah menguasai literasi dan numerasi mengikut tahap yang tertentu. Terkini, Pelan Pembangunan Pendidikan Malaysia (PPPM) juga turut menekankan kepentingan penguasaan matematik yang baik dalam kalangan pelajar dengan memberikan tumpuan yang utama kepada proses pemikiran aras tinggi dalam algebra dan geometri serta keupayaan pelajar untuk mengaplikasikan pengetahuan dalam persekitaran sebenar. Situasi ini menggambarkan kepentingan mata pelajaran matematik pada masa kini bermula dengan dasar yang telah digariskan oleh kerajaan di bawah Kementerian Pendidikan Malaysia sudah pasti akan membawa banyak perubahan dan penambahbaikan dari pelbagai aspek termasuklah persekitaran pembelajaran dan penerapan gaya pembelajaran yang sesuai ke arah meningkatkan pencapaian matematik dalam kalangan pelajar di sekolah rendah mahupun sekolah menengah.

Pencapaian matematik sering dikaitkan dengan kefahaman murid dalam mata pelajaran tersebut. Kini, pencapaian murid sekolah rendah dalam mata pelajaran matematik menarik perhatian pelbagai pihak termasuklah ibu bapa, media, pendidik malah pelbagai lapisan masyarakat dalam dan luar negara. Kefahaman dalam matematik lebih tinggi dan juga sebagai pengantar kejayaan bidang lain dalam dunia akademik. Munirah (2000) mendapati bahawa kajian mengenai kepekaan nombor antara murid-murid Malaysia menunjukkan terdapat murid yang dapat membuat pengiraan secara baik tetapi lemah dalam kepekaan nombor. Keprihatinan terhadap pencapaian matematik murid sekolah rendah terus meningkat di ambang era globalisasi, seiring kemajuan teknologi dan persaingan pada peringkat antarabangsa. Hal ini demikian kerana ramai yang melihat alam sekolah rendah sebagai tempat pertama menyediakan murid untuk kejayaan dalam bidang matematik dan yang berkaitan dengan masa hadapan. Oleh itu, pada tahap awal ini adalah penting bagi murid mempelajari matematik bagi membentuk kepercayaan dan nilai mereka terhadap matematik. Sekiranya pengalaman mereka mempelajari matematik adalah sesuatu yang bermakna, maka pengalaman ini sekali gus membantu murid membentuk kepercayaan dan nilai yang positif terhadap matematik.

Isu kepekaan nombor mula mendapat perhatian para sarjana matematik di seluruh dunia sekitar tiga dekad yang lalu (Sengul & Gulbagci 2012; Dehaene 1997; Nickerson & Whitacre 2010). Memandangkan peranannya cukup penting terhadap perkembangan fikrah matematik bagi individu, maka aspek ini telah diterapkan ke dalam kurikulum pendidikan

matematik (Australian Educational Council 1991; NCTM 1989, 2000; Tsao & Pan 2013). Perkara ini berlaku disebabkan murid selalunya diajar untuk mendapatkan jawapan yang betul tanpa memahami terhadap proses yang dilakukan untuk mendapatkan jawapan (Santi et al. 2016). Pada masa kini, memperoleh jawapan yang betul bukan lagi faktor penentu kefahaman murid dalam menyelesaikan masalah (Munirah et al. 2010). Menurut Dunphy (2007) menyatakan bahawa walaupun soalan dapat dijawab dengan betul tetapi ini tidak memberikan apa-apa makna kepada murid jika mereka tidak boleh memberikan justifikasi tentang prosedur yang mereka pilih untuk menjawab soalan.

Kajian di Malaysia mendapati bahawa murid menghadapi masalah dalam menjawab soalan yang memerlukan kepekaan nombor berbanding menjawab soalan yang memerlukan algoritma tertentu (Munirah 2000; Mohini & Jacinta 2010). Situasi dan masalah ini dialami bukan sahaja di Malaysia malahan turut dihadapi oleh negara-negara lain. Hal ini demikian kerana terlalu memberi fokus terhadap pengiraan bertulis semasa dalam proses PdP adalah antara punca utama murid mengalami masalah pembangunan kepekaan nombor di Taiwan (Yang 2005; Yang & Li 2008), Turki (Akkaya 2016; Sengul & Gulbagci 2012) dan juga Indonesia Yoppy et al. 2014). Penekanan terhadap kemahiran prosedural ini adalah berpunca daripada kurikulum pendidikan matematik nasional (Parmjit 2009). Kandungan buku teks dan aktiviti pembelajaran cenderung kepada mengingati rumus atau petua tertentu untuk memantapkan kemahiran mengira murid berbanding dengan merangsang mereka untuk mengetahui ‘bagaimana’ dan ‘kenapa’ pengiraan-pengiraan dalam matematik dilakukan (Munirah et al. 2004). Amalan sebegini secara perlahan-lahan akan menyekat keupayaan murid untuk mengembangkan pemikiran matematik mereka (Burns 1994; Kilpatrick, Swafford & Findell 2001).

Munirah Ghazali et al. (2003) dalam kajian mereka mempercayai bahawa perkembangan kepekaan nombor akan memainkan peranan penting dalam pendidikan matematik asas di Malaysia. Walaupun istilah ‘kepekaan nombor’ tidak ditekankan secara meluas dalam kurikulum matematik Malaysia, salah satu objektif matematik kurikulum adalah untuk membolehkan murid memperoleh kemahiran asas matematik seperti membuat anggaran dan pembulatan (Kementerian Pendidikan, 2015). Dalam konteks pendidikan matematik sekolah rendah di Malaysia, istilah kepekaan nombor mungkin jarang didengari dan asing walaupun pada hakikatnya kajian mengenainya sudah hampir 20 tahun dilaksanakan (Munirah 2000; Munirah & Noor Azlan 1999; Santi, Safetullah, Shahabuddin & Munirah 2016). Malahan, di dalam kurikulum matematik sekolah rendah juga tidak dinyatakan tentang istilah kepekaan nombor secara langsung (KPM 2012; KPM 2015). Namun begitu, di negara-negara seperti Singapura, Korea, Taiwan dan Hong Kong yang cemerlang dari segi pentaksiran matematik antarabangsa *Trends in International Mathematics and Science Study* (TIMMS), didapati bahawa aspek kepekaan nombor telah mendapat tempat utama dalam kurikulum pendidikan matematik mereka (Safetullah, Santi, Shahabuddin & Munirah 2016). Hal ini menunjukkan negara masing-masing sudah memandang serius tentang kepentingan penerapan kepekaan nombor sejak dari awal persekolahan lagi (Safetullah et al. 2016). Oleh itu, kajian ini adalah bertujuan untuk mengenal pasti tahap kepekaan nombor murid dalam pelbagai cabang matematik. Seterusnya mengenal pasti komponen kepekaan nombor yang lemah dalam kalangan murid Tahun Enam.

Objektif Kajian

i. Mengenal pasti tahap kepekaan nombor murid Tahun Enam dalam pelbagai cabang matematik.

ii. Mengenal pasti komponen kepekaan nombor yang lemah dalam kalangan murid Tahun Enam.

Metodologi Kajian

Reka Bentuk Kajian

Kajian ini menggunakan reka bentuk kajian deskriptif melalui pendekatan kuantitatif. Data kuantitatif adalah didapati daripada ujian bertulis kepekaan nombor. Ujian bertulis kepekaan nombor ini meliputi 25 soalan item (diadaptasi daripada McIntosh et. al. 1997). Data yang diperoleh dianalisis deskriptif dengan menggunakan perisian SPSS.

Sampel Kajian

Seramai 120 orang murid Tahun Enam di sebuah sekolah kebangsaan di daerah Tangkak dipilih sebagai sampel kajian. Bilangan sampel ini terdiri daripada 65 murid lelaki dan 55 murid perempuan. Kaedah persampelan yang dipilih adalah pensampelan bertujuan. Dalam kajian ini, pengkaji telah memilih sebuah sekolah di daerah Tangkak. Sebelum pengkaji menjalankan kajian di sekolah berkenaan, pengkaji telah mendapatkan persetujuan daripada pihak sekolah dan sampel kajian. Sampel kajian yang dipilih juga merupakan murid sekolah Tahun Enam.

Instrumen Kajian

Instrumen bagi kajian ini terdiri daripada ujian bertulis kepekaan nombor. Ujian kepekaan nombor ini terdiri daripada 25 item. Ujian ini merangkumi topik nombor bulat, wang, pecahan dan perpuluhan. Semua item dibahagikan mengikut komponen dari kerangka kepekaan nombor yang dibina oleh McIntosh. Hal ini bermakna setiap komponen mengandungi empat item. Kelima-lima komponen yang dimaksudkan adalah seperti berikut: (a) memahami makna dan saiz nombor, (b) memahami dan menggunakan pelbagai perwakilan setara bagi nombor, (c) memahami makna dan kesan operasi, (d) memahami dan menggunakan ungkapan yang setara, dan (e) mengira dengan menggunakan pelbagai strategi. Jadual 1.1 di bawah menunjukkan taburan item bagi ujian kepekaan nombor. Setiap item yang dijawab dengan betul akan diberikan 1 markah dan 0 markah jika dijawab dengan salah. Jadi, jumlah skor bagi ujian ini ialah 25 markah. Responden diberikan masa 45 saat untuk membaca dan menjawab setiap item. Prosedur ini adalah untuk mengelakkan murid-murid menggunakan pengiraan secara pensel seperti algoritma tradisional untuk mendapat jawapan.

Jadual 1.1 Contoh item soalan ujian berdasarkan komponen kepekaan nombor

Komponen Kepekaan Nombor	Contoh Item	Bilangan item	Sumber
Memahami makna dan saiz nombor	Diberi lima digit nombor iaitu: 2,6,3,5,1 Susunkan kesemua digit di atas membentuk nombor yang terkecil.	5	
Memahami dan menggunakan pelbagai perwakilan setara bagi	Lorekkan $\frac{3}{4}$ daripada segi empat tepat ini.	5	

nombor			McIntosh et al. (1997), Lim & Effandi 2017
Memahami makna dan kesan operasi nombor	Terdapat lima buah kotak yang mengandungi 15 biji epal bagi setiap kotak. Ayat matematik manakah yang menunjukkan bilangan biji epal tersebut. Bulatkan jawapan anda. A. 5 + 15 B. 15+15+15+15+15 C. 15+5 D. 5+5+5+5+5	5	
Memahami dan menggunakan ungkapan yang setara	Yang manakah mempunyai hasil darab yang terbesar. (tanpa mengira jawapan yang tepat) A. 18 x 17 B. 16 x 18 C. 17 x 19	5	
Mengira dengan menggunakan pelbagai strategi	Di sebuah sekolah mempunyai 610 orang murid. Seramai 98 orang murid telah mengikuti lawatan sambil belajar di luar sekolah, berapakah murid yang berada di sekolah? A. 400 B. 500 C. 600 D. 700	5	

Analisis Dapatan Kajian dan Perbincangan

Keputusan analisis deskriptif menunjukkan secara keseluruhannya, boleh dikatakan pada tahap sederhana. Berikut merupakan statistik deskriptif ujian kepekaan nombor.

Jadual 1.2 Statistik deskriptif Ujian Kepekaan Nombor

	N	Min	Minimum	Maksimum

Ujian Kepekaan Nombor	120	64.80	32.00	84.00

Jadual 1.2 menunjukkan seramai 120 orang bilangan responden yang mengambil bahagian dalam Ujian Kepekaan Nombor adalah seramai 120 orang. Kajian ini dijalankan bagi mengenal pasti tahap kepekaan nombor dan komponen kepekaan nombor yang lemah dalam kalangan murid Tahun Enam. Hasil kajian mendapati bahawa komponen kepekaan nombor yang kelima iaitu mengira dengan menggunakan pelbagai strategi menjadi kelemahan utama murid ini.

	N	**Min**
Komponen 1	120	65.33
Komponen 2	120	70.00
Komponen 3	120	56.17
Komponen 4	120	84.17
Komponen 5	120	48.33

Dalam komponen pertama, daripada aspek kognitif, kefahaman konsep nombor dilihat sebagai cara maklumat diwakili dan distrukturkan dengan merujuk kepada kebolehan seseorang menghubungkan idea, fakta atau prosedur. Bagi bidang memahami makna dan saiz nombor, responden mendapat peratusan yang sederhana tinggi bagi soalan yang berkaitan dengan tajuk nombor bulat dan pecahan. Hal ini menunjukkan bahawa pengetahuan mengenai pola nombor dan nilai tempat yang masih belum mencukupi.

Keadaan ini juga berlaku bagi bidang kedua, iaitu memahami dan menggunakan perwakilan setara bagi nombor, responden mendapat peratusan lebih baik berbanding komponen pertama, namun masih juga di tahap yang sama iaitu sederhana tinggi. Sesuatu idea matematik boleh diwakili suatu bentuk perwakilan atau pelbagai perwakilan. Kefahaman terbentuk apabila perwakilan idea, fakta atau prosedur matematik menjadi sebahagian daripada jaringan perwakilan. Hal ini menunjukkan bahawa murid dapat mengenal pasti dan membuat hubung kait berdasarkan bahan konkrit atau gambar rajah (sebagai perwakilan nombor).

Seterusnya, bagi bidang ketiga, iaitu memahami makna dan kesan operasi nombor menunjukkan tahap kepekaan nombor murid menurun berbanding bidang pertama dan kedua. Dalam bidang ini, responden sepatutnya dapat menjawab dengan baik kerana ia melibatkan operasi nombor. Murid-murid telah belajar operasi matematik dari tahun 1 hingga tahun 6. Akan tetapi, soalan 16, 22 dan 24 mendapat peratusan yang sangat rendah, iaitu masing-masing 49.17%, 34.17% dan 45.0%. Hal ini menunjukkan bahawa murid masih kurang jelas mengenai kesan sesebuah operasi yang dilakukan secara umum atau operasi tersebut dikaitkan dengan sekumpulan nombor tertentu. Selain itu, murid juga kurang jelas tentang hasil yang

diperoleh (jawapan) akan berubah jika suatu nombor atau nilai ditukar dalam sesebuah operasi pengiraan.

Bagi bidang keempat, iaitu memahami dan menggunakan ungkapan yang setara, murid berada pada tahap yang tinggi. Hal ini bermaksud murid dapat menukar pelbagai ungkapan kepada bentuk yang setara. Hanya satu soalan sahaja, iaitu item 23, responden tidak dapat menjawab dengan baik. Responden dikehendaki untuk mencari jawapan perbezaan hasil darab, 93×134 dengan 93×135.

Bagi bidang kelima pula, iaitu mengira dengan menggunakan pelbagai strategi, kebanyakan responden tidak dapat menjawab hampir kesemua item bagi bidang ini. Kegagalan responden menjawab soalan ini menunjukkan bahawa mereka masih kurang jelas tentang konsep darab dan belum menguasai cara untuk mengira dengan strategi yang berkesan. Sebenarnya, soalan ini boleh dijawab dengan cepat tanpa perlu menggunakan standard algoritma. Kajian menunjukkan bahawa walaupun murid mempunyai strategi menyelesaikan masalah yang dikemukakan, kepekaan nombor mereka membantu membentuk strategi bermakna. Sehubungan itu, maklumat tentang cara murid menyelesaikan masalah yang diberikan adalah lebih penting daripada sama ada mereka dapat memberikan penyelesaian yang betul atau sebaliknya.

Hasil kajian ini telah menunjukkan kewujudan jurang antara kebolehan mengira dengan kertas dan pensel serta pemahaman konseptual. Kebanyakan responden mendapat markah yang cemerlang bagi ujian sumatif subjek matematik pada akhir tahun tetapi mendapat markah yang rendah dalam ujian kepekaan nombor. Hal ini mungkin disebabkan oleh kekurangan pengajaran konseptual di sekolah. Ramai murid gagal untuk memahami konsep matematik dan tidak mahir menggunakan konsep matematik untuk menjawab soalan kepekaan nombor. Terdapat kajian yang menunjukkan jika murid menghafal prosedur tanpa memahami konsep, mereka akan menghadapi kesusahan untuk membina pengetahuan konseptual (Wearne & Hiebert, 1988).

Secara keseluruhannya, dapatan kajian menunjukkan murid Tahun Enam mempunyai tahap kepekaan nombor yang sederhana tinggi dan komponen kepekaan nombor yang menjadi kelemahan murid adalah komponen lima, iaitu mengira dengan menggunakan pelbagai strategi. Dapatan ini bersepadan dengan dapatan daripada kajian Mohini dan Jacinta (2010), yang mana responden daripada kajian mereka turut mengalami kesukaran dalam komponen kelima ini.

Kesimpulan

Keupayaan berfikir merupakan satu daripada matlamat pendidikan di Malaysia dan juga kemahiran yang diperlukan untuk pembelajaran pada abad ke-21. Justeru, usaha yang gigih daripada semua pihak sangat diperlukan untuk menjayakan pelaksanaan pembelajaran menggunakan pengiraan mental supaya dapat meningkatkan prestasi matematik murid di sekolah rendah. Dapatan kajian menunjukkan tahap kepekaan nombor bagi murid Tahun Enam adalah pada tahap sederhana tinggi. Dapat dirumuskan bahawa pengiraan mental dapat meningkatkan kefahaman murid sekali gus membantu meningkatkan pencapaian matematik itu sendiri. Kajian ini juga mendedahkan bahawa murid mencipta dan menggunakan strategi intuitif mereka sendiri apabila diminta untuk menyelesaikan masalah menggunakan pengiraan mental walaupun pengiraan mental diajar sama ada secara formal atau tidak formal kepada mereka. Namun begitu, terdapat juga murid yang tidak menunjukkan keupayaan mereka untuk pengiraan mental. Pengkaji berminat untuk mencari sebab berlaku jurang yang wujud antara kebolehan murid-murid mengira dengan menggunakan algoritma yang sedia ada dan

tahap kepekaan nombor yang ada pada mereka. Hal ini kerana pengkaji berpendapat bahawa keupayaan pelajar untuk menjalankan pengiraan mental mencerminkan pemahaman mereka terhadap nombor. Data menunjukkan bahawa kebanyakan murid mempunyai masalah dalam menyelesaikan pengiraan dengan menggunakan pelbagai strategi. Semoga melalui kajian ini, para pendidik akan didedahkan dengan kepentingan pemupukan kepekaan nombor dalam diri murid-murid dari peringkat awal lagi.

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AMALAN KEPIMPINAN INSTRUKSIONAL GURU BESAR DAN HUBUNGANNYA DENGAN KEPUASAN KERJA GURU

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Abstrak: *Kementerian Pendidikan Malaysia memberi tumpuan kepada Pelan Induk Pendidikan di Malaysia (2013-2025) bagi memastikan kepimpinan berprestasi tinggi ditempatkan di setiap sekolah dalam mentransformasikan sistem pendidikan. Oleh itu, guru besar bertanggungjawab untuk menangani setiap masalah dengan berkesan. Penyelidikan ini dijalankan untuk mengenalpasti amalan kepimpinan instruksional guru besar di Zon Bukit Pasir, daerah Muar dan hubungannya dengan kepuasan kerja guru. Kajian ini adalah kajian kuantitatif deskriptif berdasarkan kaedah tinjauan. Seramai 97 orang guru dari sekolah-sekolah rendah dipilih sebagai responden dalam kajian ini. Keputusan menunjukkan bahawa amalan kepimpinan instruksional oleh guru besar berada pada tahap yang tinggi, berdasarkan persepsi guru dan tahap kepuasan kerja guru berada pada tahap yang tinggi. Analisis korelasi Pearson menunjukkan terdapat korelasi yang signifikan antara amalan kepimpinan pengarah dan kepuasan guru sekolah rendah di kawasan Pasir Pasir, daerah Muar.Dengan keputusan ini, pihak PPD dan JPN boleh merangka pelan strategik untuk meningkatkan kemahiran pemimpin-pemimpin sekolah. Guru besar juga harus mengambil berat tentang kepuasan kerja guru agar mencapai matlamat sekolah. Oleh itu, pendidikan yang berkualiti dapat dihasilkan.*

Kata kunci*: Kepimpinan Instruksional, Kepuasan Kerja, Guru Besar Sekolah*

Abstract*: The Ministry of Education Malaysia emphasizes on the Malaysia Education Blueprint (2013-2025) to ensure high-performance leadership is placed in each school in transforming the education system. Therefore, the headmaster is responsible for addressing each problem effectively. This research was to identify the instructional leadership practice of the headmaster in Bukit Pasir Zone, Muar district and its relationship with teacher job satisfaction. This study is a descriptive quantitative study based on the survey method. A total of 97 teachers from primary schools were selected as respondents in this study. The results showed that the practice of instructional leadership of the headmaster was at high level based on the perception of the teachers and the level of the job satisfaction of the teachers was at high level. Pearson Correlation Analysis shows that there is a significant correlation between the practice of instructional leadership of the headmaster and the satisfaction of primary school teachers in Bukit Pasir Zone, Muar district. PPDs and NRDs can draft strategic plans to improve the skills of school leaders. Headmasters also care about satisfaction of teachers to achieve school goals. Therefore, quality education can be produced.*

Key words*: Instructional Leadership, Job Satisfaction, School Headmaster*

Pendahuluan

Kepimpinan adalah aspek terpenting dalam menentukan hala tuju sesebuah negara, masyarakat dan organisasi. Kecemerlangan dan keberkesanan organisasi bergantung kepada gaya kepimpinan yang dilaksanakan oleh pemimpin atau pengurus (Shukri Zain, Roslee Talib & Mohd Yusof Abdullah (2012). Guru besar merupakan pengurus terpenting dalam organisasi sekolah yang merancang, melaksana dan memantau segala urusan serta perubahan dalam sekolah.

Kementerian Pendidikan Malaysia (KPM) telah mentransformasikan PdPc bagi kurikulum yang lebih berkualiti. Oleh itu, guru besar ialah pemimpin yang wajar memimpin guru-guru secara profesional demi mencapai matlamat perubahan yang dibentuk oleh kerajaan (Muhd. Hisham Adnan, Baharuzaini Baharin, Azlin Mansor 2016).

Aspek kepimpinan guru besar juga ditekankan dalam Pelan Pembangunan Pendidikan 2013-2025 di Malaysia untuk meningkatkan kemahiran pengarah. Hal ini disebabkan, guru besar adalah pengurus tertinggi dalam organisasi yang boleh mempengaruhi orang bawahnya iaitu guru menerusi gaya kepimpinannya. Kepimpinan melibatkan dua pihak yang saling berhubung untuk mencapai sesuatu matlamat secara kolektif. Contohnya, guru besar sebagai pemimpin perlu memimpin guru-guru manakala guru-guru sebagai pengikutnya perlu bersedia menerima arahan guru besar agar proses kepimpinan berkesan (Baharom 2009).

Proses pengajaran dan pembelajaran merupakan aspek terpenting dalam sistem pendidikan di negara Malaysia yang menekankan kualiti pendidikan. Oleh itu, kepimpinan instruksional menjadi tumpuan dalam kalangan pengkaji kini. Guru besar yang mengamalkan gaya kepimpinan instruksional di sekolah mampu mewujudkan penyampaian kurikulum yang berkesan dan iklim sekolah berkondusif serta dapat mencapai matlamat sekolah (Abdul Said Ambotang & Muhd. Suhaimi Taat (2012).

Kajian Literatur

Hallinger dan Heck (2010) berpendapat konsep kepimpinan instruksional adalah kepimpinan guru besar yang mementingkan kualiti persekolahan, pembangunan sekolah dan pembelajaran pelajar. Kepimpinan instruksional didefinisikan sebagai memberi keutamaan kepada penggembelengan tenaga guru dan pengetua. Peranan guru adalah mengajar di dalam kelas dan mahir dalam bidang kurikulum dan pengajaran serta menguasai pengetahuan yang substantif manakala guru besar bertanggungjawab dalam membangunkan iklim sekolah yang kondusif dengan menyediakan kemahiran dalam pengajaran dan pembelajaran (Hoy & Hoy 2003).

Kecemerlangan sesebuah sekolah dan kepuasan kerja guru bergantung kepada gaya kepimpinan guru besar. Guru mendapat kepuasan apabila keperluannya dipenuhi dan majikan mendapat kepuasan apabila pekerjanya dapat mencapai tahap produktiviti yang tinggi (Jaafar 2007). Kepuasan yang ada pada guru akan meningkatkan motivasi guru dalam melaksanakan kerja sekolah. Pemimpin sekolah sangat berperanan dalam menentukan kepuasan kerja guru.

Mengikut kajian Mohd Zaini (2009) Pengetua di sekolah berprestasi tinggi lebih bertanggungwab dalam meningkatkan kualiti proses pembelajaran dan pengajaran serta mengurus sekolah dengan berkesan berbanding pengetua di sekolah berprestasi rendah. Kajian Anita Ithnin & Zuraidah Abdullah (2018) menyatakan kepimpinan instruksional guru

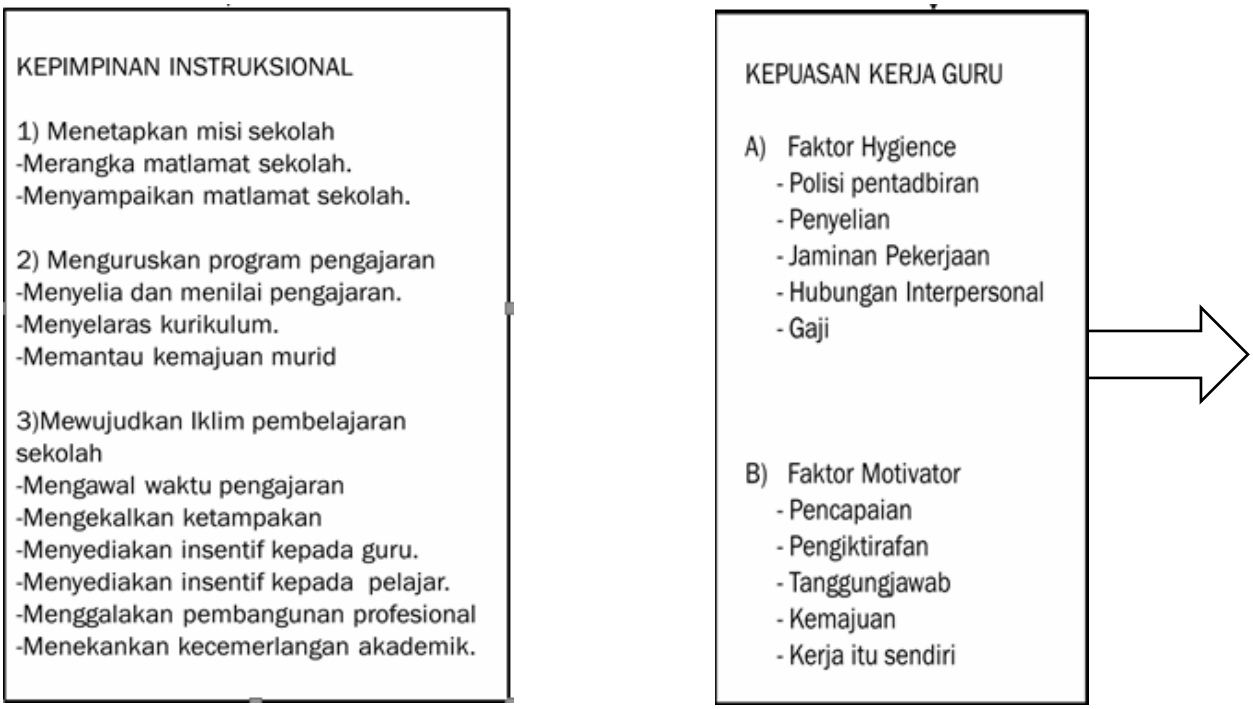
besar yang berkesan dapat membentuk ilkim pembelajaran yang kondusif serta meningkatkan prestasi sekolah tersebut.

Musfi Efrizal (2011) menjelaskan kepuasan kerja sebagai situasi emosional atau perasaan pekerja terhadap balasan yang diterima. Kepuasan kerja merupakan faktor penting untuk mempertahankan individu yang berkualiti dalam sesebuah organisasi. Antara aspek-aspek spesifik yang berkait dengan kepuasan kerja ialah gaji, keuntungan, promosi, hubungan dengan orang atasan dan rakan sekerja, suasana tempat kerja serta situasi pekerjaan (Sarita & Agustia, 2010).

Faktor utama bagi peningkatan prestasi seseorang guru adalah kepuasan kerja dan motivasi guru (Rosita, 2012). Kepuasan kerja guru pula dapat meningkatkan prestasi sekolah kerana guru yang berpuas hati dapat memberikan komitmen menyeluruh dalam proses pembelajaran dan pengajaran serta pendidikan yang berkualiti dapat dihasilkan.

Manusia sentiasa menginginkan persekitaran pekerjaan yang memuaskan dan memberikan emosi positif kepada mereka. Oleh itu, guru-guru harus dimotivasikan oleh guru besarnya untuk bekerja lebih rajin serta mengelakkan perasaan dan sentimen tidak puas hati. Antara isu yang berkait dengan kepuasan kerja guru di sekolah bersifat positif adalah peranan dalam pembuat keputusan, keupayaan guru, iklim sekolah, profesionlisme guru dan pengalaman guru (Junaidah Mohamad, 2013).

Kerangka konsep kajian dijelaskan menerusi Rajah 1 yang ditunjukkan secara terperinci di bawah. Berdasarkan Rajah 1 kajian ini melibatkan dua pembolehubah iaitu tahap amalan kepimpinan instruksional guru besar adalah pembolehubah bebas manakala tahap kepuasan kerja guru adalah pembolehubah bersandar.



Rajah 1: Kerangka Konsep Kajian

Metodologi

Kajian ini menggunakan penyelidikan kuantitatif iaitu kaedah tinjauan. Populasi kajian melibatkan guru-guru yang bertugas di 4 buah sekolah rendah di Zon Bukit Pasir, Daerah

Muar, Johor. Sebanyak 97 orang responden dipilih secara rawak mudah sebagai sampel bagi kajian ini. Saiz sampel ditentukan berdasarkan jadual Krejcie dan Morgan (1970).

Kajian ini menggunakan soal selidik sebagai instrumen yang diedarkan kepada responden-responden. Setiap item yang digunakan dalam kajian ini telah dibina dengan merujuk soal selidik yang telah digunakan diubahsuai daripada kajian Ishak Sin (2001) dan Shafinaz bt A. Maulod (2017). Proses pengubahsuaian dilakukan mengikut keperluan kajian yang dijalankan.

Soal selidik dibahagi kepada tiga bahagian. Bahagian A ialah mendapatkan data demografi responden (jantina, tahap pendidikan, tempoh perkhidmatan & umur). Bahagian B mengandungi 33 item komponen kepimpinan instruksional dan Bahagian C pula mengandungi sebanyak 22 item komponen kepuasan kerja guru.

Aras pengukuran	Skala
Sangat Setuju	1
Setuju	2
Tidak Pasti	3
Tidak Setuju	4
Sangat Tidak Setuju	5

Jadual 1: Skala instrumen soal selidik Tahap Kepimpinan Instruksional dan Tahap Kepuasan Kerja Guru

Jadual 1, diatas menunjukkan skala yang digunakan dalam soal selidik untuk mendapatkan data tentang tahap kepimpinan instruksional dan tahap kepuasan kerja guru. Pengukuran tahap dilakukan menerusi skala Likert 5 mata iaitu dari skala dari sangat setuju kepada sangat tidak setuju telah digunakan untuk bahagian B dan bahagian C yang diterangkan dalam setiap instrumen soal selidik.

Kajian rintis telah dijalankan di sebuah sekolah rendah daerah Muar yang melibatkan 30 responden. Ujian rintis ini telah diukur menggunakan analisis "Cronbach Alpha Reliability". Ujian rintis ini untuk mengukur kesahan dan kebolehpercayaan item yang digunakan dalam soal selidik kajian. Data kajian rintis telah dianalisis dalam komputer dan didapati nilai kebolehpercayaan adalah tinggi iaiti 0.89 (nilai alpha = 0.89).

Kajian ini menggunakan analisis deskriptif untuk mendapatkan bilangan dan peratusan bagi bahagian A manakala analisis min, peratusan dan sisihan piawai untuk Bahagian B dan Bahagian C. Analisis infrensi pula melibatkan analisi pekali kolerasi pearson-r untuk melihat hubungan antara amalan kepimpinan instruksional dengan kepuasan kerja guru.

Data dan maklumat kajian dianalisis dengan menggunakan perisian *Statistical Package for Social Science (SPSS Window versi 20.0)* untuk melihat setiap item bagi setiap kategori berdasarkan kekerapan, peratusan, min dan korelasi ke atas amalan kepimpinan instruksional guru besar yang telah diklasifikasikan kepada lima tahap seperti yang ditunjukkan dalam Jadual 2.

Skor Purata	Interprestasi
1.00 hingga 1.8	Sangat Rendah
1.90 hingga 2.6	Rendah
2.70 hingga 3.4	Sederhana

3.50 hingga 4.2	Tinggi
4.30 hingga 5.00	Sangat Tinggi

Sumber: Bahagian Perancangan dan Penyelidikan Dasar Pendidikan (2006) (PIPP)

Jadual 2: Skala interprestasi skor purata ke dalam 5 tahap (skala likert)

Analisis Korelasi Pearson digunakan untuk menentukan sama ada terdapat hubungan yang signifikan antara amalan kepimpinan instruksional guru besar dengan kepuasan kerja guru di Zon Bukit Pasir, Daerah Muar. Jadual 3 menunjukkan anggaran kekuatan

Pekali Korelasi	Kekuatan Hubungan
±0.70 – 1.00	Tinggi
±0.30 – 0.69	Sederhana
±0.00 – 0.29	Rendah

Sumber : Jackson (2003)

perhubungan antara pembolehubah pekali korelasi.

Jadual 3: Skala interprestasi skor purata ke dalam 5 tahap (skala likert 5)

Dapatan Kajian

Populasi kajian terdiri daripada guru sekolah rendah di Zon Bukit Pasir Daerah Muar. Sebanyak 97 orang guru sekolah rendah yang dipilh secara rawak terlibat sebagai responden dalam kajian ini. Jadual 2 dibawah menjelaskan faktor demografi:

Faktor Demografi	Kategori	Frekuensi	Peratusan
Jantina	Lelaki	41	42.3%
	Perempuan	56	57.7%
Umur	20 hingga 29 tahun	35	36.1%
	30 hingga 39 tahun	44	45.4%
	40 hingga 49 tahun	18	18.5%
Tempoh Perkhidmatan	5 tahun dan ke bawah	15	15.5%
	6 hingga 10 tahun	38	39.2%
	11 hingga 15 tahun	33	34.0%
	16 tahun dan ke atas	11	11.3%
Tahap Pendidikan	Diploma	11	11.3%
	Degree	54	55.7%
	Master	27	27.8%
	PhD	5	5.2%

Jadual 4: Profil Responden

Berdasarkan Jadual 2 diatas, bilangan responden perempuan sebanyak 57.7% melebihi responden lelaki sebanyak 42.3%. Kategori umur responden, responden berumur antara 20 hingga 29 tahun sebanyak 35 orang (36.1%), berumur 30 hingga 39 tahun sebanyak 44 orang (45.4%) dan hanya 18 orang (18.5%) yang berumur antara 40 hingga 49 tahun. Dari segi tempoh perkhidmatan pula, responden yang berkhidmat selama 5 tahun dan ke bawah adalah 15 orang (15.5%), seterusnya 6 hingga 10 tahun sebanyak 38 orang (39.2%), 33 orang (34.0%) responden bagi 11 hingga 15 tahun dan 11 orang (11.3%) bagi tempoh 16 tahun dan

ke atas. Bagi kategori tahap pendidikan pula, majoriti responden mempunyai kelulusan akademik tertinggi pada tahap Ijazah Sarjana Muda iaitu 54 orang (55.7%), diikuti Ijazah Sarjana sebanyak 27 orang (27.8%), bagi kelulusan diploma 11 orang (11.3%) dan hanya 5 orang (5.2%) mempunyai kelulusan PhD.

Persolan kajian bagi tahap amalan kepimpinan instruksional guru besar mewakili sebanyak 33 item yang berdasarkan 3 dimensi kepimpinan instruksional. Dapatan kajian adalah seperti yang ditunjukkan dalam Jadual 5.

Elemen	Min	S.P	Interprestasi Min
Menetapkan Misi Sekolah	3.82	0.85	Tinggi
Menguruskan Program Pengajaran	3.71	0.86	Tinggi
Mewujudkan Iklim Pembelajaran Sekolah	3.62	0.91	Tinggi
Nilai Kesuluruhan	**3.59**	**0.84**	**Tinggi**

Jadual 5: Taburan Min bagi item kepimpinan instruksional

Jadual 5 menunjukkan taburan min bagi item kepimpinan instruksional guru besar. Secara keseluruhan tahap amalan kepimpinan instruksional guru besar adalah berada pada tahap tinggi (min = 3.59 ; s.p. = 0.84). Keputusan ini disebabkan ketiga-tiga dimensi kepimpinan instruksional guru besar di Zon Bukit Pasir menunjukkan tahap tinggi. Dimensi menetapkan misi sekolah merupakan dimensi yang paling tinggi (min = 3.82; s.p. = 0.85) diikuti dimensi menguruskan program pengajaran (min = 3.71; s.p. = 0.86) manakala dimensi mewujudkan iklim pembelajaran sekolah merupakan dimensi yang paling rendah (min = 3.62 ; s.p. = 0.91).

Item	Min	S.P	Interprestasi Min
Faktor *Hygiene*	4.52	0.475	Sangat Tinggi
Faktor *Motivator*	4.46	0.481	Sangat Tinggi
Kesuluruhan	**4.49**	**0.624**	**Sangat Tinggi**

Jadual 6 : Taburan Min bagi item kepuasan kerja guru

Persolan kajian bagi tahap kepuasan kerja guru mewakili sebanyak 22 item yang berdasarkan 2 dimensi kepuasan kerja. Dapatan kajian adalah seperti yang ditunjukkan dalam Jadual 6. Secara keseluruhan didapati tahap kepuasan kerja guru berada pada tahap yang sangat tinggi dengan nilai min adalah 4.49 dan sisihan piawai adalah 0.624. Dimensi Hygience adalah dimensi paling tinggi (min = 4.52; s.p. = 0.475) dan dimensi Motivator pula min 4.46 dan sisihan piawai 0.481.

Jadual 7 di bawah menunjukkan analisis skor min dan sisihan piawai bagi setiap instrumen yang digunakan dalam kajian ini. Kedua-dua instrumen iaitu tahap kepimpinan instruksional guru besar (M = 3.59, S.P = 0.84) dan kepuasan kerja guru (M = 4.49, S.P = 0.624) mencatatkan tahap analisis skor min yang tinggi.

Persoalan kajian bagi hubungan antara kepimpinan instruksional guru besar dengan kepuasan kerja guru diuji dengan ujian korelasi Pearson (r). Dapatan kajian ditunjukkan dalam Jadual 8 di bawah;

Kepuasan Kerja Guru

	N	r	P	Kekuatan Hubungan
Kepimpinan Instruksional	97	0.902	0.00	Tinggi

*Pekali korelasi signifikan pada p <0.01

Jadual 6: Analisis korelasi pearson

Jadual 6 menunjukkan terdapat hubungan yang signifikan antara amalan kepimpinan instruksional guru besar dengan tahap kepuasan kerja guru di sekolah-sekolah rendah Zon Bukit Pasir (r = 0.902, p = 0.00, p < 0.01). Dapatan kajian menunjukkan terdapat perkaitan yang tinggi kuat antara amalan kepimpinan instruksional guru besar dengan tahap kepuasan kerja guru di sekolah-sekolah yang dikaji. Selain itu, perkaitan positif berdasarkan nilai pekali korelasi Pearson 'r' menunjukkan bahawa tahap kepuasan kerja guru akan meningkat jika tahap amalan kepimpinan instruksional guru besar meningkat. Oleh itu, hipotesis kajian, Hı adalah diterima.

Perbincangan Kajian

Tahap amalan instruksional guru besar di Zon Bukit Pasir telah dinilai oleh pengkaji menerusi tiga dimensi utama dan secara keseluruhan menunjukkan tahap tinggi berdasarkan skor min (min = 3.59; S.P. = 0.84) menurut persepsi guru. Dapatan kajian diperkukuhkan dengan kajian-kajian yang lain dijalankan di lokasi berlainan. Menurut hasil kajian Lee (2010) & Shafinaz (2017) yang mengenalpasti tahap amalan instruksional pengetua di sekolah menengah dapatan menyatakan tahap amalan instruksional pengetua adalah pada tahap yang tinggi.

Tahap kepuasan kerja guru di Zon Bukit Pasir juga berada pada tahap tinggi berdasarkan skor min (m =4.49; S.P. = 0.624). Kepimpinan instruksional yang berkesan dapat membentuk iklim pembelajaran yang kodusif kepada guru dan pelajar. Oleh itu, kepuasan dan prestasi kerja guru juga meningkat (Jamilah Ahmad & Yusof Boon, 2011)

Hubungan antara amalan kepimpinan instruksional guru besar dengan tahap kepuasan kerja guru di sekolah-sekolah Zon Bukit Pasir yang dikaji adalah signifikan dan dapatan ini disokong kajian-kajian lepas oleh Asuani & Azlin (2015) dan Rohana & Azlin (2014). Sesebuah institusi pendidikan mencapai kecemerlangan dalam aspek kurikulum apabila tahap kepimpinan dan kepuasan kerja berada pada tahap tinggi.

Selain itu, dapatan ini selari dengan dapatan kajian Earn & Yusof Boon (2016) yang menjalankan kajian di lokasi yang sama iaitu mempunyai hubungan yang signifikan antara tahap amalan instruksional dengan kepuasan kerja guru.

Implikasi Kajian

Secara keseluruhan, kajian ini telah menyatakan tahap amalan kepimpinan instruksional guru besar sekolah rendah berdasarkan persepsi guru adalah pada tahap tinggi menerusi analisis deskriptif selar. Berdasarkan hasil kajian mendapati, guru besar lebih berfokus dalam dimensi menetapkan misi sekolah kerana misi sekolah yang jelas dan berkesan dapat memberikan jalan yang betul kepada guru bagi mencapainya.

Selain itu, dapatan juga menunjukkan mempunyai hubungan yang signifikan antara amalan kepimpinan instruksional guru besar dengan kepuasan kerja guru di Zon Bukit Pasir, Daerah Muar. Kepimpinan guru besar yang cekap dapat membentuk tenaga pengajar yang cemerlang dan semangat berkhidmat lebih baik dalam kalangan guru (Christina, 2012).

Pemimpin yang berkesan dapat mempengaruhi para guru dan memberi tunjuk ajar kepada guru serta dapat menguruskan sekolah dengan berkesan. Selain kepuasan kerja guru, prestasi guru dan motivasi guru juga dapat meningkat. Pengamalan kepimpinan instruksional pada tahap tinggi dapat memastikan guru mencapai tahap kepuasan yang tinggi.

Cadangan Kajian

Berdasarkan perbincangan di atas beberapa cadangan ingin dikemukakan.

(a) Kajian ini masih mempunyai kekurangan dari segi penglibatan responden dan lokasi kajian. Sebagai cadangan, kajian lanjutan boleh dijalankan seperti kajian ini tetapi menggunakan skop lokasi yang lebih besar dan berlainan serta penglibatan responden yang lebih banyak.

(b) Kajian ini menggunakan reka bentuk kuantitatif yang berbentuk soal selidik untuk mendapatkan maklumat. Cadangan kajian yang sama dijalankan dengan mengguanakan kaedah kualitatif seperti temu bual untuk mengukur tahap amalan kepimpinan guru besar dan kepuasan kerja guru. Maklumat temu bual dan rakaman audio dapat memberikan maklumat yang lebih jelas dan kukuh.

Rumusan

Kepimpinan instruksional adalah amalan kepimpinan yang sangat penting dalam sesebuah institusi pendidikan agar proses pengajaran dan pembelajaran sentiasa diberi perhatian. Kepimpinan instruksional meliputi keseluruhan keperluan sesebuah sekolah iaitu dari segi matlamat, pengurusan program pengajaran dan iklim pengajaran di sekolah. Dengan kajian ini, dapat dilihat guru besar telah melaksanakan tanggungjawab sebagai pemimpin instruksional serta dapat memuaskan guru sekolah mereka dengan gaya kepimpinannya. Guru Besar yang efektif dan memahami peranannya dapat meningkatkan kepuasan kerja guru dan prestasi sekolah.

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KEDUDUKAN MELETAKKAN SYARAT BAGI MENGHALANG SUAMI BERPOLIGAMI DALAM PERKAHWINAN MENURUT PANDANGAN FUQAHA

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ABSTRAK:*Islam telah menetapkan hukum perkahwinan yang lengkap demi menjamin kelangsungan institusi kekeluargaan dengan menetapkan hak dan tanggungjawab bagi setiap pasangan. Pada masa yang sama, Islam membolehkan pasangan yang ingin berkahwin menetapkan apa-apa syarat yang sejajar dengan syarak. Oleh itu, objektif kajian ini adalah untuk mengkaji dan membandingkan pandangan fuqaha yang muktabar mengenai pensyaratan dalam perkahwinan khususnya berkaitan dengan menghalang suami berpoligami . Kajian ini berbentuk kajian kualitatif dengan menggunakan kaedah pengumpulan data melalui bahan bacaan yang berkaitan dengan pensyaratan dalam perkahwinan dan menganalisis pandangan fuqaha secara induktif. Hasil kajian mendapati bahawa pandangan jumhur fuqaha mengenai pensyaratan dalam perkahwinan mestilah meletakkan syarat yang tidak bercanggah dengan hukum syarak yang lain melainkan mazhab Hanbali yang dilihat lebih longgar mengenai perletakan syarat dalam perkahwinan dengan membolehkan semua syarat kecuali yang bertentangan dengan al-Quran dan al-Sunnah sahaja.*

Kata kunci *: Perkahwinan, Pensyaratan, Hak Wanita, Poligami*

Pendahuluan

Islam merupakan agama penyempurna kepada seluruh agama *samawi*. Allah S.W.T berfirman bahawasanya Dia telah menyempurnakan Islam dan meredhainya sebagai agama atau cara hidup untuk umat sekalian alam. Keunggulan sistem perkahwinan dalam Islam terserlah apabila ia telah berjaya melahirkan individu dan masyarakat yang berkualiti, memiliki ciri-ciri keunggulan dari segi akhlak, nilai, pemikiran dan sebagainya. Menurut teori *Maqasid Syar'iyyah,* objektif asal perkahwinan dalam Islam adalah untuk menjaga keturunan yang tersenarai dalam perkara *dharuriyyat al-khams.* Untuk merealisasikan tujuan tersebut, maka peraturan, syarat dan hukum tertentu diwujudkan dalam perkahwinan Islam. Sesuatu perkahwinan yang sah akan terbentuk apabila mengikut peraturan serta syarat utama yang telah ditetapkan terhadap akad. Akad di dalam bahasa Arab ialah ikatan atau simpulan sama ada yang dapat dilihat secara zahir ataupun tidak. Menurut aspek syariah pula, akad ialah suatu kesepakatan bersama sama ada berbentuk lisan, tulisan mahupun isyarat antara dua

pihak yang bakal mendatangkan implikasi hukum serta mengikat pihak-pihak yang terlibat untuk melaksanakannya. Walaupun begitu, akad yang diwujudkan mestilah bebas daripada segala halangan dan kepincangan serta sebab yang boleh menjadikan akad itu terbatal supaya ia akan mendatangkan hasil dan impilikasi yang sejajar dengan tuntutan akad tersebut. Tuntutan akad ialah hukum-hukum asasi yang telah ditetapkan oleh syarak bagi setiap akad sama ada secara langsung melalui nas atau ijtihad para mujtahid dengan tujuan untuk mengimbangi hak-hak di antara pihak-pihak yang berakad. (al-Zuhayli 1989, 4 : 203)

Walaubagaimanapun, kadang kala terdapat beberapa tuntutan sampingan yang bukan berdasarkan tuntuan akad di dalam sesebuah perkahwinan. Tuntutan sampingan itu ditentukan dan diwujudkan oleh pihak-pihak yang berakad berdasarkan keizinan syarak dalam batasan tertentu dan tuntutan sampingan tersebut diserlahkan dengan mengadakan syarat-syarat tertentu yang dipersetujui oleh kedua belah pihak. Misalnya apabila suami ingin mengikat isterinya kepada perkara tertentu seperti tidak bekerja, melakukan kerja rumah dan sebagainya. Isteri pula melalui walinya bertindak mengenakan syarat tertentu seperti suami tidak boleh berpoligami selagi mana isteri berlaku baik, tidak keluar malam dan sebagainya. Setelah itu, pihak-pihak yang berakad bersetuju untuk menerima syarat atau tuntutan tersebut serta mengadakan perjanjian dan kemudiannya disebutkan semasa akad perkahwinan mereka. Ibn Qayyim menyatakan bahawa akad dan syarat itu pada asalnya adalah sah dan harus melainkan syarat yang melanggar tuntutan syarak. Sesuatu perkara tidak boleh dilakukan sekiranya sabit hukuman haram terhadapnya.

Objektif Kajian

Untuk menyempurnakan kajian ini, penulis menyenaraikan beberapa objektif kajian yang disasarkan :

i. Mengetahui kedudukan poligami dalam Islam
ii. Mengkaji pandangan fuqaha' empat mazhab mengenai perletakkan syarat dalam perkahwinan serta hukum yang yang mengikat.

Persoalan Kajian

i. Adakah Islam membenarkan perihal pensyaratan dalam perkahwinan?
ii. Apakah perihal syarat yang diambil kira sebagai perkara yang memberi kesan dalam perkahwinan?

Metodologi Kajian

Metodologi yang digunakan adalah Analisis Dokumen : Kaedah ini digunakan untuk mendapatkan dan mengumpulkan maklumat melalui pembacaan bahan-bahan bercetak yang berkaitan dengan penulisan seperti kitab-kitab fiqh dan hadis serta Akta Undang-undang berhubung dengan topik kajian. Metodologi kajian ini adalah sesuai bagi membincangkan konsep-konsep berkaitan berpandukan kepada dalil-dalil al-Quran, hadis, pandangan para ulamak.

Takrif Syarat

Syarat ialah sifat yang jelas serta tetap yang mana bergantung kepada syarat tersebut kewujudan sesuatu hukum. Walaubagaimanapun, kewujudan sesuatu hukum itu tidak akan memberikan kesan terhadap syarat. Menurut al-Zuhayli (1986), ketiadaan syarat akan menyebabkan ketidakwujudan hukum. Walaupun demikian, kewujudan syarat itu sendiri tidak memestikan wujudnya sesuatu hukum atau tidak wujudnya sesuatu hukum. Syarat juga ialah suatu unsur luar daripada hakikat hakikat sesuatu.

Misalnya dalam Islam, syarat sah untuk solat antaranya ialah dengan berwudhuk. Jika tiada wudhuk, maka solat dianggap tidak sah. Sekalipun demikian, tidak semestinya dengan kewujudan wudhuk tersebut akan menyebabkan kewujudan solat kerana mungkin seseorang itu berwudhuk untuk menyentuh dan membaca al-Quran, bukannya untuk bersolat dan tidak semestinya dengan kewujudan wudhuk itu, tiadanya solat kerana mungkin seseorang itu berwudhuk kemudian baru mengerjakan solat. Demikan juga dengan saksi perkahwinan. Kehadiran dua orang saksi dalam akad perkahwinan adalah menjadi syarat untuk sahnya sesuatu perkahwinan itu dan ia merupakan unsur yang berada di luar hakikat sesebuah perkahwinan. Menentukan dengan jelas jenis barang yang dijual serta harga dalam akad jual beli juga adalah menjadi syarat sahnya jual beli dan ianya bukanlah daripada bahagian internal dalam sesuatu kontrak. (al-Zuhayli, 2010 1:58)

Definisi Poligami

Poligami adalah sesuatu yang diharuskan dalam Islam. Ia adalah suatu ketetapan yang tidak dapat dinafikan. Ayat-ayat al-quran tentang keharusannya dan hadis-hadis Rasulullah s.a.w tentang kewajipan berlaku adil, pembahagian giliran dan sebagainya dalam berpoligami menunjukkan betapa pengaturan syariat dalam hal ini telah diperincikan. Poligami ditakrifkan sebagai perkahwinan yang melibatkan lebih daripada seorang isteri . Poligami ini pula dibahagikan kepada dua bahagian iaitu poliandri dan poligini. Poliandri adalah keadaan seseorang wanita memiliki lebih daripada seorang lelaki dalam suatu masa manakala poligini pulak diertikan sebagai keadaan di mana seorang lelaki memiliki lebih daripada seorang wanita dalam satu masa. Dari segi takrif perkataan yang paling sesuai ialah ‘poligni’ namun istilah yang menjadi kebiasaan dalam masyarakat ialah ‘poligami’ yang bermaksud seorang lelaki boleh mempunyai lebih daripada seorang isteri. (Azizah Kasim, 1985 : 185)

Menurut Kamus Dewan (2007: 1222), poligami bermaksud amalan beristeri lebih daripada satu orang pada masa yang sama. Istilah dalam bahasa Arab ialah *ta’addud al-zawjat* iaitu berbilang-bilang isteri. Manakala syarak mendefiniskan poligami sebagai amalan bernikah dengan memperisterikan lebih daripada seorang wanita dan tidak melebihi empat orang wanita dalam satu masa mengikut syarat-syarat tertentu yang berkaitan dengan pernikahan tersebut (Azizah Kasim, 1985 : 185).

Kedudukan Syarat Tidak Dimadukan (Poligami) Mengikut Pandangan Fuqaha’

Syarat yang dimuatkan dalam sesuatu akad tidak semuanya diambil kira dan mengikat pihak-pihak yang telibat. Ini kerana hanya syarat yang tidak bertentangan dengan tuntutan syarak sahaja yang diiktiraf. Namun demikian perkara yang menjadi perbincangan ulama ialah penentuan sesuatu syarat itu sama ada ianya sahih atau sebaliknya. Sesetengah ulama mengutarakan syarat yang agak longgar dalam menentukan syarat sahih dan sebahagian mereka pula agak ketat dalam menerima sesuatu syarat. Namun demikian, ulama dalam menentukan hukum sesuatu syarat itu adalah berdasarkan kepada kedudukannya dengan dilihat dari segi kesejajarannya dengan tuntutan akad dan kehendak syarak. Berdasarkan aspek tersebut dan perbincangan fuqaha’ dalam membahagikan syarat, ia boleh dibahagikan secara langsung kepada empat kategori (Ibn Qudamah 1969, 7:93 ; al-ᶜAyniyy 1980, 4 :225 ; al-Kandahlawiyy 1974, 9:321 ; al-Mardawiyy 1956, 8:159-163 ;Kauthar Kamil ᶜAli 1979,70) : -

a) Syarat yang merupakan sebahagian daripada tuntutan akad dan ia menguatkannya. Antara syarat yang sejajar dengan tuntutan akad adalah seperti syarat oleh isteri kepada suami agar

memberikan nafkah kepadanya, makan minum, tempat tinggal yang selayaknya, mengauli dengan baik, tidak mengurangkan sedikitpun hak-haknya dalam pengiliran dan seumpamanya yang menjadi tanggungjawab suami terhadap isteri. Contoh syarat yang menguat dan menyokong tuntutan akad adalah seperti isteri mensyaratkan adanya penjamin dalam masalah maskahwin. Semua syarat-syarat yang berbentuk sedemikian adalah syarat yang sahih untuk dipersyaratkan dalam akad dengan disepakati oleh semua ulama.Syarat agar tidak dimadukan adalah bukan syarat yang sejajar dengan tuntutan akad dan tidak menguatkannya.

b) Syarat yang memberikan kesan dalam kesahihan akad dan membatalkannya (al-Mardawiyy 1956, 8:159-163). Contohnya syarat menghadkan tempoh masa dalam perkahwinan. Syarat ini boleh menghalang kesempurnaan sighah akad kerana matlamat daripada akad perkahwinan adalah untuk berkekalan selama-lamanya, tanpa tertentu dalam tempoh tertentu sahaja. Dari segi hukum, syarat ini memberi kesan kepada akad dengan membatalkannya mengikut jumhur ulama sebagai mana dalam perbincangan mereka mengenai "*perkahwinan akad*" atau perkahwinan *mut`ah*.

c) Syarat yang bertentangan dengan tuntuan akad atau syarat yang ditegah oleh syarak. Contoh syarat yang bertentangan dengan tuntuan akad ialah suami mensyaratkan dalam akad agar beliau tidak memberi nafkah kepada isterinya atau agar beliau tidak mewarisinya setelah kematiannya. Contoh syarat yang ditegah oleh syarak ialah isteri mensyaratkan suaminya semasa akad agar menceraikan madunya. Syarat ini ditegah oleh syarak berdasarkan hadith yang bererti (al-Bukhariyy, 7:26) : "Tidak harus bagi seseorang perempuan meminta suami menjatuhkan talak rakannya (kongsinya) untuk mengambil tempatnya, sebenarnya beliau akan mendapat hak yang ditetapkan kepadanya."

Mazhab Hanafi mengatakan bahawa mensyaratkan ke atas suaminya agar tidak memadukannya atau kahwin selainnya adalah dalam kategori syarat ini dan jatuh hukum syarat sebagai syarat fasid kerana tidak selari dengan kehendak dan tuntutan akad, bukan peneguh baginya, tidak juga dinaskan oleh syarak dan tidak diperakui oleh uruf, sebaliknya mempunyai manfaat tambahan sama ada bagi salah satu pihak berakad atau pihak lain.

Mazhab Shafie juga mengatakan sedemikian dengan memberi alasan bahawa ia tidak mengandungi kemaslahatan kepada akad dan bertentangan dengan ketetapan syarak. Poligami adalah suatu yang diizinkan oleh syarak, sedangkan syarat sedemikian adalah bertentangan dengan tuntutan syarak.

d) Syarat yang tidak sejajar dan menguatkan tuntutan akad, tetapi tidak pula bercanggah dengannya dan tidak ada larangan dan suruhan oleh syarak, tetapi ianya mempunyai objektif yang jelas dan benar daripada pihak yang mengadakannya. Contohnya, isteri mensyaratkan kepada suaminya dalam akad agar tidak berkahwin selainnya atau agar tidak membawanya keluar dari negerinya atau rumahnya. (al-Kandahlawiyy 1974, 9:321)

Walaupun mazhab Hanafi dan Shafie turut mengkategorikan syarat tersebut dalam syarat ini tetapi dalam memberikan hukum dan alasan mereka mengatakan bahawa ia adalah syarat yang bertentangan dengan akad. Sebaliknya mazhab Maliki dengan jelas menyatakan bahawa syarat tidak dimadukan termasuk di dalam kategori ini tetapi mereka menyatakan hukumnya adalah fasid. Mazhab Hanbali pula menyatakan bahawa syarat tidak dimadu adalah syarat sahih dengan memberikan alasan yang sama dengan mazhab Maliki, iaitu syarat tidak sejajar dengan tuntutan akad tetapi tidak menafikannya secara mutlak.

Bentuk syarat yang terakhirnya diperdebatkan oleh para ulama dan mereka terbahagi kepada dua kumpulan :

Jumhur fuqaha' berpendapat syarat ini adalah fasid dan tidak mesti dilaksanakan. Namun kefasadan syarat ini tidak memberi kesan kepada akad, cuma syarat sahaja menjadi rosak tetapi akad masih kekal sahih. Ini berdasarkan, prinsip yang dipegangi mereka bahawa asal syarat adalah tidak mesti dan tidak mengikat hinggalah ada dalil syarak yang menyabitkan keharusan syarat tersebut. Selain daripada hadith yang disebut sebelum ini, mereka juga berhujah bahawa antara matlamat asasi syarak daripada perkahwinan adalah menjaga perkahwinan dari kekacauan dan menghalang orang ramai menjadikan perkahwinan mereka berdasarkan hawa nafsu semata-mata. Oleh itu, tidak boleh dimasukkan syarat yang tidak diizinkan oleh syarak. Tambahan pula pihak suami atau isteri kemungkinan akan menafikan syarat tersebut pada masa akan datang dan ini boleh menimbulkan perseteruan. (Kauthar Kamil Ali 1979, 72 &73)

Sementara itu, mazhab Hanbali menegaskan bahawa syarat tersebut adalah sahih, mesti dituruti. Sekiranya mana-mana pihak enggan mematuhi syarat itu, maka pihak satu lagi berhak untuk mefasakhkan akad. Hal tesebut membuktikan bahawa mazhab ini berpegang bahawa asal persyaratan dalam perkahwinan adalah sahih sehingga wujud mana-mana dalil muktabar yang menyatakan kebatilannya.(Ibn Qudamah1969, 7:93) Mereka juga mengatakan bahawa syarat tersebut mempunyai manfaat tertentu disebaliknya oleh pihak yang mensyaratkannya. Beliau merelai akad tersebut berlaku atas dasar syarat tersebut dilaksanakan dan dalam masa yang sama ia tidak menghalang kewujudan matlamat perkahwinan yang telah dinyatakan oleh dalil syarak yang sarih, maka syarat tersebut mesti dipatuhi. (Kauthar Kamil ᶜAliyy 1979, 76)

Dengan menjadikan semua syarat yang tidak bertentangan dengan dalil syarak maka mazhab Hanbali ini telah menjadikan akad nikah itu sendiri tidak lazim ketika syarat itu tidak dipatuhi oleh pihak yang mengenakannya pada diri sendiri dan dengan ini beliau mempunyai hak untuk memfasakhkan akad juga dengan tidak mematuhi syarat tersebut dan dalam masa yang sama tidak memungkinkan untuk memaksa pihak satu lagi mennunaikannya. Sebagai contoh, jika seseorang perempuan mensyaratkan dalam akad bahawa beliau tidak boleh dimadukan dan kemudiannya suaminya berkahwin lagi, maka akad yang kedua sah tetapi isteri pertama berhak untuk fasakh.

Kesimpulan

Secara kesimpulannya, kaedah pensyaratan dalam perkahwinan bukan merupakan sesuatu perkara yang haram secara qat'ie kerana tidak ada dalil yang menyebutnya secara khusus. Selain itu, para ulama mengiktiraf pensyaratan dalam perkahwinan sekalipun mereka menklasifikasikan syarat itu kepada beberapa bahagian iaitu . Namun demikian, bukan semua syarat yang diletakkan akan mendatangkan kesan hukum dan dipatuhi oleh pihak-pihak yang berakad. Kedudukan syarat dari sudut kesejajaran atau bertentangan dengan akad perlu di ambil kira sebelum mencadangkan sesuatu syarat untuk dimasukkan ke dalam akad dengan merujuk kepada pakar.

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ANALISIS KEUPAYAAN PELAJAR TINGKATAN 4 DALAM PENJANAAN MASALAH POLA NOMBOR

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Abstrak: *Strategi penjanaan masalah merupakan strategi yang baru dalam pengajaran dan pembelajaran matematik supaya pelajar dapat meningkatkan tahap kefahaman dan penguasaan matematik. Kajian ini bertujuan untuk mengenal pasti keupayaan pelajar tingkatan 4 dalam menjana masalah pola nombor secara berkumpulan dan individu. Selain itu, kajian ini juga bertujuan untuk mengenal pasti perbezaan keupayaan penjanaan masalah pola nombor di antara pelajar aliran sains dengan pelajar aliran sastera. Kajian dijalankan menggunakan pendekatan kuantitatif. Pendekatan kuantitatif dijalankan secara tinjauan dengan menggunakan tiga instrumen Penjanaan Masalah Matematik yang diadaptasikan daripada Cai dan Lester (2005) dan Bair dan Rich (2011). Kajian ini menggunakan teknik persampelan bertujuan. Data telah di analisa menggunakan analisis deskriptif dengan menggunakan frekuensi dan peratus dan analisis inferensi dengan menggunakan ujian t tidak bersandar. Hasil kajian mendapati keupayaan pelajar tingkatan 4 menjana masalah pola nombor secara berkumpulan dan secara individu berada pada tahap yang sama iaitu tahap sederhana. Dapatan kajian ini juga menunjukkan terdapat perbezaan yang signifikan terhadap keupayaan menjana masalah pola nombor antara pelajar aliran sains dengan pelajar aliran sastera. Kajian ini memberi implikasi kepada pengalaman pelajar dalam meningkatkan tahap kognitif secara aktif dan kreatif. Kajian ini diharapkan dapat menyediakan maklumat bagi meningkatkan kemahiran penjanaan masalah dalam kalangan pelajar khususnya agar kemahiran baru ini menjadi satu alternatif dalam bilik darjah dan seterusnya menjadikan pendidikan di Malaysia terus seiring dengan negara-negara maju.*

Kata Kunci: *Penjanaan Masalah, Keupayaan Menjana Masalah.*

Pengenalan

Strategi pengajaran dan pembelajaran yang sesuai dalam bidang matematik penting untuk memastikan pelajar dapat menguasai pembelajaran yang diajar oleh guru. Namun begitu, terdapat pelbagai pihak yang mengeluh tentang tahap penguasaan Matematik yang lemah di kalangan majoriti pelajar di Malaysia (Kamel Ariffin 2002). Hal ini dibuktikan dalam laporan PISA pada tahun 2015 dalam bahagian literasi matematik menunjukkan pelajar masih lemah dalam membina konsep, membuat pernyataan umum dan menggunakan maklumat berdasarkan siasatan dan pembinaan model tentang situasi kompleks dan menggunakan pengetahuan dalam konteks yang tidak biasa (Kementerian Pelajaran Malaysia 2016).

Proses pembelajaran matematik dikenali sebagai suatu proses konstruktif di mana pelajar membina dan membentuk ilmu dalam bidang matematik dengan mengaitkan ilmu atau

konsep yang sedia ada pada mereka (Abd. Razak & Nor Asmah 2008). Teknik dan pengajaran guru di dalam bilik darjah banyak mendorong kepada keupayaan pelajar dalam menguasai konsep matematik. Hasil kajian Syed Abdul Hakim dan Mohini (2010) menunjukkan pelajar yang mendapat skor terendah dalam matematik, pelajar lebih kepada mereka sendiri strategi penyelesaian bagi memperoleh jawapan dan hanya menggunakan strategi penyelesaian yang pernah dipelajari di sekolah sahaja. Manakala pelajar yang mendapat skor tertinggi, mereka lebih berhati-hati dengan memahami kehendak soalan untuk memperoleh jawapan. Pendekatan ini perlu diubah dan para pelajar seharusnya dibimbing untuk meneroka ilmu matematik. Kaedah atau strategi pengajaran matematik perlu menjurus kepada aktiviti pemikiran pelajar serta berpusatkan pelajar agar dapat meningkatkan kemahiran berfikir dalam kalangan pelajar.

Antara kaedah pengajaran matematik yang meningkatkan kemahiran berfikir dalam kalangan pelajar ialah kaedah penjanaan masalah. Namun begitu, aktiviti penjanaan masalah kurang menerima perhatian dalam sukatan pelajaran matematik berbanding dengan aktiviti penyelesaian masalah (Carillo & Cruz 2016; Chai & Hwang 2002). Hal ini kerana pendekatan aktiviti penyelesaian masalah sering mendapat perhatian dan digunakan dalam penyelidikan matematik dan kurikulum matematik (Schoenfeld 2007; Carillo & Cruz 2016). Walau bagaimanapun perkembangan semasa menunjukkan aktiviti penjanaan masalah mula mendapat perhatian oleh pengkaji-pengkaji di Malaysia dan mendapati penjanaan masalah merupakan salah satu kaedah yang berkesan dalam meningkatkan pencapaian pelajar (Norulbiah & Effandi 2011; Zahra e tal. 2012; Rohani & Effandi 2013; Nur Ain Syakirah 2017).

Penjanaan masalah merupakan satu perkembangan kajian yang baru dan pendekatan yang boleh digunakan dalam pengajaran dan pembelajaran yang berpusatkan pelajar (Carillo & Cruz 2016; Singer, Ellerton & Chai 2013). Pendekatan penjanaan masalah dapat mengatasi perasaan tertekan atau kebimbangan dalam pembelajaran matematik (Brown & Walter 2005) dan dapat memberikan sikap positif terhadap pembelajaran matematik (Akay & Boz 2010). Proses penjanaan masalah terdiri daripada keupayaan pelajar dari segi struktur masalah, konsep matematik, penggunaan bahasa dan kesesuaian masalah matematik yang dijana. Proses penjanaan masalah melibatkan pola nombor adalah perlu bagi melihat permulaan keupayaan pelajar dalam menjana masalah matematik. Hal ini kerana aktiviti penjanaan masalah lebih baik bermula dengan masalah yang terbuka dan menggalakkan menimbulkan masalah dengan generalisasi dan abstrak struktur matematik, hubungan dan corak, dan bukannya cuba biarkan mereka menyelesaikan masalah sendiri yang ditimbulkan oleh pelajar (Rohani & Effandi 2013).

Pengkaji memilih responden kajian yang terdiri daripada pelajar tingkatan 4 untuk mengenal pasti keupayaan mereka dalam menjana masalah pola nombor kerana pelajar yang terlibat dalam kajian ini terdiri daripada pelajar aliran sains dan aliran sastera. Pengkaji mentakrifkan pelajar aliran sains sebagai pelajar yang mengambil mata-mata pelajaran elektif seperti Fizik, Kimia, Biologi, Prinsip Akaun dan Matematik Tambahan. Manakala pelajar aliran sastera adalah pelajar yang tidak mengambil mata-mata pelajaran elektif seperti Fizik, Kimia, Biologi, Prinsip Akaun dan Matematik Tambahan.Oleh itu, pengkaji ingin mengenal pasti keupayaan pelajar tingkatan 4 dalam menjana masalah pola nombor secara berkumpulan dan individu. Pengkaji juga ingin mengenal pasti perbezaan keupayaan pelajar aliran sains dengan pelajar aliran sastera dalam menjana pola nombor.

Tinjauan Literatur

Teori Pembelajaran Berasaskan Penjanaan Masalah Matematik

Terdapat tiga teori pembelajaran dan pendekatan telah dikenal pasti agar dapat diaplikasikan dalam persekitaran semasa aktiviti penjanaan masalah iaitu teori kognitivisme (Piaget 1929), teori Sosial Konstruktivisme (Vygotsky 1978) dan pendekatan Inkuiri Terbimbing (Hanson 2006). Melalui teori kognitif, proses pengalaman diubahsuai dan maklumat baru yang sesuai dengan apa yang individu tahu terlebih dahulu, dan berlaku apabila individu itu berhadapan dengan keadaan yang baharu dan cuba untuk mengubah suai pengalaman dengan kesesuaian struktur kognitif. Ini adalah satu proses perubahan pengalaman untuk membiasakan diri. Manakala teori Sosial Konstruktivisme menekankan bahawa perkembangan pengetahuan individu dapat ditingkatkan melalui interaksi interpersonal sama ada dengan rakan sebaya atau orang dewasa yang lebih berketrampilan. Tambahan pula, interaksi melalui perbincangan antara pelajar menyediakan mekanisma untuk meningkatkan pemikiran aras tinggi dengan mewujudkan konflik kognitif dan seterusnya membawa kepada perspektif yang baru. Inkuiri terbimbing juga merupakan pendekatan yang sesuai dalam persekitaran penjanaan masalah matematik kerana pelajar yang berada di peringkat ini perlu diberikan bimbingan asas oleh guru bagi mencetuskan persoalan dan merangsang mereka untuk terus membuat penerokaan. Bimbingan daripada guru masih diperlukan kerana pelajar masih belum diberi banyak pendedahan dengan aktiviti penjanaan masalah matematik. Guru akan bertindak sebagai fasilitator supaya pelajar tidak menemui jalan buntu dalam menjana masalah matematik yang berkualiti.

Strategi Penjanaan Masalah

Penjanaan masalah boleh ditafsirkan dalam pelbagai keadaan yang berbeza bergantung kepada objektif kajian. Arikan dan Unal (2015) menyatakan penjanaan masalah boleh didefinisikan sebagai penghasilan masalah baharu daripada suatu keadaan dan situasi yang diberi. Selain itu, Zahra Ghasempour (2013) menyatakan penjanaan masalah sebagai kaedah pengajaran di mana pelajar membina soalan sebagai tindak balas terhadap situasi dalam kehidupan seharian atau masalah matematik yang berbeza daripada guru mereka. Ponte dan Henriques (2012) yang menyatakan bahawa penjanaan masalah sebagai satu proses penjanaan soalan yang konsisten bagi membolehkan aktiviti matematik yang mengandungi pembentukan soalan-soalan utama dan soalan-soalan tambahan dapat dilaksanakan. Terdapat lima strategi penting dalam penjanaan masalah yang telah disenaraikan iaitu: (1) *What If* atau *What If Not* (WIN), (2) Replikasi, (3) Penjanaan Masalah Uno dan Masalah Due, (4) Pengubahsuaian, (5) "*Six non-sequentially actions*". Pemilihan strategi yang sesuai adalah penting untuk menghasilkan pelajar yang mampu menjana masalah dengan baik serta menggalakkan kemahiran berfikir secara kritis di kalangan pelajar.

Keupayaan Pelajar Menjana Masalah Matematik Berdasarkan Pola Rajah dan Pola Nombor

Terdapat kajian yang dijalankan untuk mengenal pasti perbezaan keupayaan pelajar menjana masalah berdasarkan pencapaian akademik. Sebagai contoh, Cankoy dan Darbaz (2010) menyatakan pelajar yang terdedah dengan kaedah pengajaran dan pembelajaran penjanaan masalah dan penyelesaian masalah lebih baik dalam ujian memahami masalah berbanding dengan pelajar yang hanya menerima kaedah pengajaran penyelesaian masalah. Hal ini

disokong oleh dapatan kajian oleh beberapa pengkaji sebelum ini, terhadap keupayaan pelajar menjana masalah menunjukkan bahawa pelajar mampu menjana masalah sekiranya mereka faham dan tahu cara menyelesaikan masalah tersebut (Arikan & Unal 2015; Cankoy & Darbaz 2010; Norulbiah & Effandi 2016). Namun begitu, dapatan kajian Yeo dan Yeap (2009) yang menggunakan masalah melibatkan penyiasatan terbuka iaitu menjana masalah matematik yang melibatkan corak turutan nombor, mendapati bahawa pelajar masih berupaya menjana masalah matematik walaupun mereka tidak memahami masalah dan tidak mengetahui apa yang perlu disiasat. Walau bagaimanapun, Cankoy dan Darbaz (2010) menyatakan pendapat bahawa pelajar yang tidak memahami masalah yang diberikan akan menghadapi kesukaran dalam mencari dan menggunakan strategi penyelesaian masalah yang bersesuaian. Pelajar tidak dapat menjelaskan dan mengamalkannya dalam kehidupan seharian mereka. Justeru, menyebabkan pelajar kehilangan motivasi untuk menyelesaikan sesuatu masalah.

Schoenfeld (1992) dan NCTM (2000), mengatakan bahawa penjanaan masalah meliputi aktiviti yang dirancang sendiri oleh pelajar dan dengan demikian dapat merangsang seluruh kemampuan pelajar sehingga memperoleh pemahaman yang lebih baik. Namun begitu, keupayaan penjanaan masalah matematik dalam kalangan pelajar berada pada tahap sederhana kerana aktiviti menjana masalah kurang dilaksanakan di dalam bilik darjah (Lavy & Bershadsky 2003). Pelajar juga tidak mempunyai keyakinan yang cukup untuk membuat perubahan dalam masalah yang diberikan, walaupun hanya menukar data berangka tertentu ke dalam satu sama lain tertentu yang dianggap sebagai sesuatu yang mudah. Keupayaan pelajar dalam menjana masalah matematik adalah dipengaruhi oleh pencapaian matematik mereka (Norulbiah & Effandi 2011). Pendapat yang sama juga dinyatakan oleh Yuan dan Sriman (2010) iaitu pengetahuan matematik pelajar dapat membantu dalam proses menjana masalah matematik. Menurut Yeop dan Yeap (2009) antara faktor yang mempengaruhi keupayaan pelajar dalam menjana masalah matematik ialah kebanyakan pelajar tidak tahu apa yang perlu dilakukan dalam penyiasatan matematik dan gagal untuk memahami aktiviti penjanaan masalah yang diberikan.

Terdapat perbezaan keupayaan penjanaan masalah matematik antara pelajar cemerlang dengan pelajar kurang cemerlang dalam bidang akademik. Sebagai contoh, dapatan kajian Arikan dan Unal (2015) menunjukkan keupayaan pelajar cemerlang dalam bidang akademik menunjukkan 40 peratus manakala pelajar kurang cemerlang dalam bidang akademik menunjukkan 3.8 peratus dalam menjana masalah pecahan. Hal ini menunjukkan terdapat perbezaan keupayaan pelajar dalam menjana masalah matematik mengikut pencapaian pelajar. Struktur masalah matematik yang dijana oleh pelajar diperoleh daripada pembinaan konsep melalui pengalaman dalam kehidupan seharian pelajar. Pelajar diperlukan untuk memahami tanggapan abstrak melalui aktiviti penjanaan masalah.

Selain daripada perbezaan pencapaian akademik, perbezaan dari segi jantina dan budaya juga antara faktor yang dikaji oleh pengkaji sebelum ini. Sebagai contoh, dapatan kajian Norulbiah (2011) menunjukkan tidak terdapat perbezaan yang signifikan antara jantina pelajar dari sudut kesanggupan dan ketabahan dalam melakukan aktiviti penjanaan masalah. Namun begitu, Lakoff dan Johnson (2005) menyatakan pelajar mempunyai pemahaman konsep yang berlainan, struktur masalah matematik yang dijana oleh pelajar juga dibentuk mengikut budaya yang berlainan.

Objektif Kajian

Kajian ini bertujuan untuk mengenal pasti keupayaan pelajar tingkatan 4 dalam menjana masalah matematik pola nombor secara berkumpulan dan juga secara individu. Kajian ini juga melihat perbezaan keupayaan pelajar aliran sains dan pelajar aliran sastera menjana masalah adalah perlu untuk melihat perbezaan proses penjanaan masalah matematik yang dilalui oleh pelajar semasa menjana masalah pola nombor.

Soalan Kajian

Soalan-soalan yang diketengahkan dalam kajian ini adalah:

1. Apakah keupayaan pelajar tingkatan 4 dalam menjana masalah pola nombor secara berkumpulan?
2. Apakah keupayaan pelajar tingkatan 4 dalam menjana masalah pola nombor secara individu?
3. Apakah terdapat perbezaan keupayaan penjanaan masalah pola nombor di antara pelajar aliran sains dengan pelajar aliran sastera?

Metodologi

Reka Bentuk Kajian

Kajian ini merupakan suatu kajian tinjauan yang menggunakan pendekatan kuantitatif dan ditadbirkan sendiri oleh pengkaji. Kekuatan kajian tinjauan ini, adalah melalui keupayaannya dalam mengenal pasti *trend* sesuatu kelompok.

Sampel Kajian

Populasi kajian terdiri daripada 490 orang pelajar tingkatan 4 di sebuah sekolah menengah harian di Selangor. Manakala bilangan responden kajian adalah seramai 80 orang pelajar tingkatan 4 di mana 40 orang pelajar aliran sains dan 40 orang pelajar aliran sastera. Pengkaji menggunakan kaedah persampelan bertujuan dalam memilih responden. Hal ini kerana sampel dipilih berdasarkan pengetahuan atau pengalaman lepas dan sebab-sebab untuk memilih sampel. Responden terdiri daripada pelajar tingkatan 4 yang mengambil aliran sains dan aliran sastera di sekolah ini. Pengkaji juga telah membahagi pelajar dalam 8 kumpulan yang terdiri daripada 5 orang pelajar dalam satu kumpulan bagi setiap aliran semasa aktiviti penjanaan masalah secara berkumpulan.

Profil responden menunjukkan bilangan pelajar tingkatan 4 mengikut aliran mata pelajaran. Bilangan responden pelajar lelaki ialah 53 orang (46.5%) manakala bilangan responden pelajar perempuan ialah 61 orang (53.5%). Bilangan responden pelajar juga terdiri daripada 57 orang pelajar aliran sains (50%) dan bilangan responden pelajar aliran sastera juga seramai 57 orang (50%).

Instrumen Kajian

Kajian dijalankan ke atas 114 orang pelajar tingkatan 4 sekolah menengah harian dengan menggunakan Instrumen Penjanaan Masalah Matematik. Instrumen Penjanaan Masalah Matematik terdiri daripada tiga tugasan penjanaan masalah. Tugasan pertama iaitu tugasan berkumpulan terdiri daripada gambar rajah pola blok yang diadaptasi daripada Cai dan Lester (2005). Tugasan kedua pula menggunakan gambar rajah pola titik sebagai stimulus dan tugasan ketiga menunjukkan suatu jujukan nombor. Tugasan dua dan tiga merupakan tugasan individu adalah adaptasi daripada Bair dan Rich (2011). Instrumen kajian telah melalui proses kesahan melalui kajian Wreyana (2015).

Proses pengumpulan data dimulakan dengan memberi tugasan penjanaan masalah yang pertama pada minggu pertama, kemudian tugasan penjanaan masalah yang kedua pada pertemuan minggu yang berikutnya dan seterusnya. Sebelum memulakan tugasan tersebut, guru akan melakukan beberapa aktiviti penjanaan masalah seperti aktiviti berkumpulan dan pop kuiz agar pelajar diberi pendedahan mengenai konsep penjanaan masalah. Setiap tugasan diberikan semasa kelas Matematik berlangsung dan masa yang diperuntukkan untuk melengkapkan satu tugasan adalah selama 20 minit. Sebanyak empat pertemuan kelas Matematik diperlukan untuk melengkapkan kesemua tugasan dan menjadikan kajian ini sebahagian daripada aktiviti pengajaran dan pembelajaran di sekolah.

Analisis Dapatan Kajian

Kesemua masalah yang dijana oleh pelajar tingkatan 4 dinilai melalui tiga fasa. Fasa pertama, pengkaji menentukan sama ada masalah yang dijana adalah masalah matematik, pernyataan atau tidak lengkap. Pada fasa kedua, pengkaji menentukan masalah matematik tersebut berkaitan dengan pola ataupun tidak berkaitan dengan pola. Pada fasa ketiga pula, pengkaji menentukan skor 1 hingga skor 4 mengikut rubrik pemarkahan bagi masalah matematik yang berkaitan dengan pola berdasarkan elemen struktur, konsep matematik, bahasa yang digunakan dan kesesuaian reka bentuk masalah yang dijana. Rubrik pemarkahan ini diubahsuai dengan merujuk kepada kajian Roslinda et al. (2013). Satu masalah yang diterima harus mempunyai struktur kandungan masalah yang memerlukan kemahiran berfikir aras tinggi (KBAT), menggunakan konsep gabungan matematik yang lebih sukar, pernyataan masalah yang tepat dan jelas serta masalah yang dijana boleh diselesaikan, realistik dan sangat menarik.

Seterusnya setiap pelajar diberikan skor mengikut jumlah skor bagi elemen struktur atau kandungan masalah, konsep matematik, penggunaan bahasa dan kesesuaian reka bentuk masalah yang dijana. Jumlah skor ini merupakan skor bagi keupayaan penjanaan masalah pola nombor setiap pelajar. Satu skala gred disediakan untuk menentukan tahap keupayaan pelajar dalam penjanaan masalah pola nombor untuk kajian ini. Skor maksimum bagi setiap elemen adalah 4. Manakala untuk keempat-empat elemen skor maksimum adalah 4 x 4 = 16.

Jadual 1 menunjukkan skor yang dijangkakan akan diperoleh oleh pelajar. Seterusnya, pengkaji membahagikan jumlah skor 16 markah dalam bentuk 3 tahap (rendah, sederhana dan tinggi). Taburan skor tahap keupayaan penjanaan masalah pola nombor pelajar seperti yang dipaparkan dalam jadual 2.

Jadual 1Skor yang diperoleh oleh pelajar bagi setiap elemen dan skor keseluruhan.

Elemen	**Skor**
Struktur / Kandungan Masalah	4
Konsep matematik	4
Bahasa	4
Kesesuaian reka bentuk masalah	4
Jumlah Skor	**16**

Jadual 2 Tahap skor keupayaan penjanaan masalah

Jumlah skor	**Penerangan tahap**
1 – 6	Lemah
7 – 11	Sederhana
12 – 16	Baik

Bagi memastikan kebolehpercayaan data yang di kumpul, pengkaji menggunakan teknik persetujuan antara pakar atau kaedah antara penaksir (*inter-rater procedure*). Pengkaji telah memilih dua orang pakar, yang diminta memberikan penilaian persetujuan terhadap jawapan para pelajar yang dikaji. Pakar tersebut terdiri daripada seorang guru cemerlang subjek matematik dan seorang guru matematik yang mempunyai pengalaman mengajar melebihi 10 tahun.Analisis inferensi digunakan untuk menguji perbezaan keupayaan penjanaan masalah pola nombor di antara pelajar aliran sains dengan pelajar aliran sastera. Ujian-t tidak bersandar (*independent sample t-test*) akan digunakan bagi hipotesis kajian yang dibina untuk menguji perbezaan antaranya. Andaian-andaian yang memenuhi ujian-t tidak bersandar perlu dilakukan sebelum pengujian hipotesis. Ujian ini dilakukan pada aras signifikan $p<0.05$ bagi menentukan sama ada terdapat perbezaan yang signifikan dalam pemboleh ubah berdasarkan aliran mata pelajaran yang diambil oleh pelajar.

Keupayaan Pelajar Tingkatan 4 Menjana Masalah Pola Nombor Secara Berkumpulan

Dalam tugasan satu iaitu tugasan kumpulan, sebanyak 85 masalah yang berjaya dijana oleh kumpulan pelajar sementara lima masalah yang dijana oleh mereka adalah tidak lengkap dan tidak berkaitan pola. Jadual 3 menunjukkan skor pelajar dalam menjana masalah secara berkumpulan.

Jadual 3 Skor pelajar dalam menjana masalah secara berkumpulan

Elemen	Lemah	Sederhana	Baik	Cemerlang
Struktur Masalah	3 (3.5%)	20 (23.5%)	59 (69.4%)	3 (3.5%)
Konsep Matematik	4 (4.7%)	50 (58.8%)	30 (35.3%)	1 (1.2%)
Penggunaan Bahasa	9 (10.6%)	55 (64.7%)	21 (24.7%)	0 (0.0%)
Kesesuaian	3 (3.5%)	30 (35.3%)	51 (60.0%)	1 (1.2%)

Jadual 4 Tahap skor keupayaan penjanaan masalah secara berkumpulan

Tahap	Kekerapan	Peratus
Lemah	4	4.7%
Sederhana	64	75.3%
Baik	17	20.0%

Secara kesimpulannya, jadual 5 menunjukkan jumlah skor bagi kesemua elemen, sebanyak 64 masalah berada pada tahap sederhana, 17 masalah berada pada tahap baik dan 4 masalah berada pada tahap lemah.

Keupayaan Pelajar Tingkatan 4 Menjana Masalah Pola Nombor Secara Individu

Dalam tugasan dua, sebanyak 317 masalah yang berjaya dijana oleh pelajar tingkatan 4 sementara 25 masalah yang dijana oleh mereka adalah tidak lengkap dan tidak berkaitan pola. Jadual 5 menunjukkan skor pelajar dalam menjana masalah tugasan dua secara individu.

Jadual 5 Skor pelajar dalam menjana masalah tugasan dua secara individu

Elemen	Lemah	Sederhana	Baik	Memuaskan
Struktur Masalah	39 (12.3%)	136 (42.9%)	131 (41.3%)	11 (3.5%)
Konsep Matematik	40(12.6%)	229 (72.2%)	41 (12.9%)	7 (2.2%)
Penggunaan Bahasa	87 (27.4%)	196 (61.8%)	30 (9.5%)	4 (1.3%)
Kesesuaian	40 (12.6%)	158 (49.8%)	115(36.3%)	4 (1.3%)

Jadual 6 Tahap skor keupayaan penjanaan masalah tugasan dua secara individu

Tahap	Kekerapan	Peratus
Lemah	40	12.6%
Sederhana	249	78.5%
Baik	28	8.8%

Secara kesimpulannya, jadual 6 menunjukkan jumlah skor bagi kesemua elemen, sebanyak 207 masalah berada pada tahap sederhana, 61 masalah berada pada tahap lemah dan 46 masalah berada pada tahap baik.

Perbezaan Keupayaan Penjanaan Masalah Pola Nombor Di Antara Pelajar Aliran Sains Dengan Pelajar Aliran Sastera.

Analisis statistik inferensi perbezaan keupayaan penjanaan masalah pola nombor dalam tugasan dua dengan aliran sains dan sastera mendapati bahawa terdapat perbezaan yang signifikan antara keupayaan penjanaan masalah pola nombor dengan pelajar aliran sains dan sastera. Jadual 7 menunjukkan analisis ujian-t antara keupayaan penjanaan masalah pola nombor dengan pelajar aliran sains dan pelajar aliran sastera dalam tugasan dua.

Jadual 7 Ujian-t antara keupayaan penjanaan masalah pola nombor dengan pelajar aliran sains dan pelajar aliran sastera dalam tugasan dua.

Pemboleh ubah	Aliran	N	Min	SP	Nilai-t	Sig.
Keupayaan Penjanaan Masalah	Sains	159	2.061	0.608	-2.007	0.046
	Sastera	158	2.196	0.588		

Ujian-*t* dalam jadual 6 menunjukkan terdapat perbezaan yang signifikan bagi keupayaan penjanaan masalah pola nombor dalam tugasan dua di antara pelajar aliran sains dengan pelajar aliran sastera, di mana $t = -2.007$, $p < 0.05$. Oleh itu, hipotesis nol yang menyatakan tidak terdapat perbezaan min keupayaan penjanaan masalah pola nombor di antara pelajar aliran sains dengan pelajar aliran sastera adalah didapati berjaya ditolak. Ini

bermakna, terdapat perbezaan signifikan min keupayaan penjanaan masalah pola nombor di antara pelajar aliran sains dengan pelajar aliran sastera. Seterusnya, skor min keupayaan menjana masalah bagi pelajar aliran sains adalah 2.061 (n= 159; SP= 0.608) dan skor min keupayaan menjana masalah bagi pelajar aliran sastera adalah 2.196 (n= 158; SP= 0.588).

Jadual 8 menunjukkan menunjukkan analisis ujian-t antara keupayaan penjanaan masalah pola nombor dengan pelajar aliran sains dan pelajar aliran sastera dalam tugasan tiga.

Jadual 8 Ujian-t antara keupayaan penjanaan masalah pola nombor dengan pelajar aliran sains dan pelajar aliran sastera.

Pemboleh ubah	Aliran	N	Min	SP	Nilai-t	Sig.
Keupayaan Penjanaan Masalah	Sains	143	1.764	0.640	-2.887	0.004
	Sastera	157	1.965	0.563		

Ujian-t dalam jadual 8 menunjukkan terdapat perbezaan yang signifikan bagi keupayaan penjanaan masalah pola nombor dalam tugasan dua di antara pelajar aliran sains dengan pelajar aliran sastera, di mana $t = -2.887$, $p < 0.05$. Oleh itu, hipotesis nol yang menyatakan tidak terdapat perbezaan min keupayaan penjanaan masalah pola nombor di antara pelajar aliran sains dengan pelajar aliran sastera adalah didapati berjaya ditolak. Ini bermakna, terdapat perbezaan signifikan min keupayaan penjanaan masalah pola nombor di antara pelajar aliran sains dengan pelajar aliran sastera. Seterusnya, skor min keupayaan menjana masalah bagi pelajar aliran sains adalah 1.764 (n= 143; SP= 0.640) dan skor min keupayaan menjana masalah bagi pelajar aliran sastera adalah 1.965 (n= 157; SP= 0.563).

Perbincangan

Data kajian ini menunjukkan bahawa pelajar tingkatan 4 di sekolah yang dikaji mampu menjana masalah matematik seperti yang diminta. Dapatan ini selari dengan dapatan beberapa pengkaji lain yang menyatakan pelajar-pelajar mempunyai keupayaan untuk menjana masalah yang menarik dan menjana masalah matematik yang penting (Cai et al. 2015). Namun begitu, memandangkan ini merupakan pengalaman pertama bagi majoriti pelajar, maka pelajar-pelajar ini merasakan agak sukar bagi mereka untuk menjana masalah baru. Crespo dan Sinclair (2008) menyokong dapatan ini dengan menyatakan bahawa kesukaran untuk menjana masalah yang berlaku dalam kalangan pelajar adalah disebabkan oleh kekurangan pendedahan kepada pelajar untuk meneroka masalah semasa aktiviti penjanaan masalah berlaku.

Pengkaji juga mendapati tiada perbezaan yang ketara bagi masalah yang dijana oleh pelajar tingkatan 4 secara berkumpulan atau individu dari segi struktur, konsep, bahasa dan kesesuaian. Hal ini kerana keupayaan pelajar tingkatan 4 menjana masalah pola nombor secara berkumpulan atau individu masih berada pada tahap sederhana. Namun, melalui skor min yang diperoleh dalam dapatan kajian ini didapati bahawa skor min bagi penjanaan masalah secara berkumpulan adalah tinggi berbanding skor min penjanaan masalah secara individu. Dapatan ini selari dengan mana-mana kajian yang dijalankan mengenai perbezaan keupayaan secara berkumpulan atau individu. Pendekatan kolaboratif dalam kumpulan adalah efektif berbanding pendekatan secara individu. Terdapat peningkatan secara signifikan dalam pencapaian dan sikap pelajar sekiranya pendekatan kolaboratif dilaksanakan dalam bilik darjah (Baines, Blatchford & Kutrick 2007).

Selain itu, dapatan kajian mendapati bentuk masalah yang dijana masih tidak mencabar walaupun telah diminta menjana masalah berbentuk pemikiran peringkat tinggi (HOTS). Namun, dapatan ini menyokong dapatan kajian Silver dan Cai (1993) yang melaporkan terdapat hubungan positif yang kukuh antara penyelesaian masalah pelajar sekolah menengah dan kebolehan menjana masalah. Sekiranya pelajar hanya didedahkan prosedur pengiraan sahaja dalam bilik darjah, maka masalah yang dijana juga hanya berada pada tahap pengetahuan dan pemahaman prosedur sahaja. Hal ini bercanggah dengan pendapat Silver (1994) yang menyatakan pelajar tidak perlu dipaksa untuk menyelesaikan masalah yang mereka timbulkan. Walau bagaimanapun, pelajar dapat mencapai pemahaman yang lebih baik jika berjaya menyelesaikan masalah yang mereka jana.

Dapatan kajian ini juga menunjukkan terdapat perbezaan yang signifikan terhadap keupayaan penjanaan masalah pola nombor di antara pelajar aliran sains dengan pelajar aliran sastera. Hal ini dipengaruhi oleh perbezaan keupayaan penjanaan masalah pola nombor berdasarkan pencapaian pelajar. Ini kerana pemilihan pelajar ke dalam aliran sains dan aliran sastera adalah disebabkan pencapaian pelajar dalam PT3 di mana inisiatif untuk mendapatkan nisbah 60:40 yang merupakan salah satu dasar pendidikan negara telah meletakkan syarat bagi menempatkan pelajar yang mendapat aliran C6 dan ke atas ke dalam aliran sains secara mandatori (KPM 2012).

Dapatan kajian ini adalah selari dengan beberapa kajian yang menyatakan keupayaan penjanaan masalah matematik dipengaruhi oleh pencapaian matematik mereka (Pajares & Graham 1999). Pendapat yang sama dinyatakan oleh Yuan dan Sriman (2010) di mana kemahiran menjana masalah matematik dapat ditingkatkan melalui pengetahuan matematik pelajar. Namun, berdasarkan skor min keupayaan penjanaan masalah matematik, skor min pelajar aliran sastera lebih tinggi berbanding skor min pelajar aliran sains. Hal ini kerana antara faktor yang mempengaruhi keupayaan pelajar dalam menjana masalah matematik ialah kebanyakan pelajar tidak tahu apa yang perlu dilakukan dalam penyiasatan matematik dan gagal untuk memahami aktiviti penjanaan masalah yang diberikan (Yeo & Yeap 2009).

Dapatan kajian ini juga bercanggah dengan beberapa kajian mengenai keupayaan penjanaan masalah yang dipengaruhi oleh keupayaan pelajar dalam menyelesaikan masalah matematik. Hal ini disokong oleh kajian Nur Ain Syakirah (2017) yang menunjukkan tidak terdapat hubungan antara keupayaan pelajar menjana masalah matematik dengan keupayaan pelajar dalam menyelesaikan masalah matematik. Tambahan pula, dapatan kajian Johari dan Yeong (2014) menunjukkan prestasi pelajar aliran sains dan aliran sastera adalah sama iaitu tidak memuaskan dalam menyelesaikan masalah yang memerlukan kemahiran berfikir yang tinggi. Johari dan Yeong (2014) berpendapat bahawa kekurangan dalam penguasaan isi kandungan matematik di kalangan pelajar bukan faktor utama yang menyebabkan kegagalan untuk menyelesaikan masalah dengan berkesan. Faktor yang lebih penting ialah memberi pendedahan dan pengalaman kepada kemahiran dan strategi penyelesaian masalah. Hal ini dapat mempengaruhi kemahiran dan strategi penjanaan masalah matematik juga dalam kalangan pelajar.

Kajian lanjut dicadangkan untuk mengenal pasti strategi yang digunakan oleh pelajar tingkatan 4 dalam menjana masalah matematik. Strategi dalam menjana masalah matematik masih kurang dan perlu diperluaskan dalam institusi-institusi pendidikan di Malaysia. Selain itu, kajian penjanaan masalah untuk konsep matematik selain pola nombor juga boleh diterokai seperti kalkulus, algebra atau geometri. Kajian lanjut juga dicadangkan untuk mengenal pasti kesan pengajaran berpusatkan aktiviti penjanaan masalah terhadap pelajar di negara kita. Terdapat kajian daripada beberapa negara luar seperti Amerika Syarikat, China,

Taiwan, Singapura dan Asia Barat yang mendapati kesan pengajaran berpusatkan aktiviti penjanaan masalah adalah amat berfaedah untuk pelajar. Kemungkinan beberapa penemuan baru boleh diperolehi daripada kajian di negara kita.

Cadangan pada masa akan datang supaya strategi penjanaan masalah matematik dimasukkan dalam kurikulum sekolah dapat diperhalusi dan diberi perhatian agar ia memberi kesan yang positif terhadap sistem pendidikan khususnya pendidikan matematik.

Kesimpulan

Aktiviti penjanaan masalah merupakan aktiviti yang baru kepada pelajar kerana mereka kurang diberikan pendedahan pengalaman dalam menjana masalah matematik. Antara faktor yang mempengaruhi kemahiran penjanaan masalah pelajar ialah teknik penyoalan guru yang masih menggunakan soalan rutin untuk mengukur tahap penguasaan matematik dalam kalangan pelajar menyebabkan tahap masalah pelajar hanya berada pada tahap yang sederhana sahaja. Sedangkan proses penjanaan masalah dikatakan mampu meningkatkan kemahiran berfikir pelajar ke peringkat yang lebih tinggi. Oleh itu, pembelajaran berlaku melalui masalah yang bermutu yang dijana oleh pelajar di mana mereka dapat menggunakan kemahiran meneroka, menyelidik, membuat ramalan dan membuat refleksi.

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PERSEPSI TERHADAP PENGGUNAAN BAHASA SARKASTIK DARI PERSPEKTIF GOLONGAN REMAJA

Ezzah 'Afifah binti Nasrudin

Pengenalan

Tidak dinafikan bahawa bahasa sarkastik ini disifatkan sebagai pengucapan yang agak kasar. Ciri utama gaya bahasa sarkastik lebih bersifat pada celaan dan kesat sehingga menyakitkan hati si pendengar (Tarigan, 2009). Jika dilihat pada asal usul perkataan sarkastik itu berasal daripada bahasa Yunani, iaitu "sarkasmos" yang termasuk dalam golongan kata kerja "sarkasein" bermaksud "merobek-robek daging seperti anjing" atau "bicara dengan kepahitan" (Keraf, 2010). Secara etimologi, sarkastik berasal dari negara Perancis yang bahasa latinnya disebut sebagai "sarcasmus" yang berasal daripada perkataan "sarkazo" yang bermaksud hati yang telah tertusuk. Oleh itu, ada ahli bahasa yang berpendapat bahawa penggunaan bahasa sarkazo ini dapat menyebabkan kesakitan yang mendalam sehingga terkesan di dalam hati.

Sungguhpun begitu, sarkastik tidak semestinya digunakan secara kasar (Grice, 1975). Kenyataan di atas juga telah disokong oleh Gibbs (2000) yang menyatakan pendapat bahawa sarkastik merupakan sejenis ironi yang digunakan untuk bergurau senda, namun ia mempunyai beberapa unsur atau sentimen seperti unsur penghinaan, ejekan, dan sindiran dalam konteks ayat yang boleh menjurus kepada unsur negatif. Gibbs menerangkan lagi bahawa unsur ini dianggap berkaitan dengan unsur peribadi yang digunakan sebagai suatu jenaka. Oleh itu, terdapat kepelbagaian dalam penggunaan sarkastik dan tujuannya dalam pertuturan. Sekiranya diteliti penggunaan sarkastik ini, ia mampu untuk mengejek dan menghina seseorang secara berlapik.

Misalnya, Burton (2009) lebih gemar menyampaikan sarkastik secara humor bagi tujuan untuk mengejek atau menghina seseorang. Berdasarkan pengalamannya, Burton telah mengatakan bahawa apabila sarkastik disampaikan secara humor, maka ia dapat berfungsi untuk menghangatkan lagi perbualan antara individu lain yang sememangnya kurang gemar menggunakan sarkastik secara kasar. Penyampaian sarkastik sering diundang reaksi negatif dalam pertuturan. Oleh itu, Burton telah memberikan pandangan bahawa sarkastik itu juga boleh disampaikan dalam bentuk humor. Pandangan Burton mempunyai persamaan dengan Haiman (1998) iaitu seorang Profesor dalam bidang linguistik yang mengatakan bahawa penggunaan sarkastik adalah bersesuaian mengikut keperibadian seseorang dan kebudayaan yang melingkupi penuturnya.

Tambahan lagi, Burton (2009) mengatakan bahawa istilah sarkastik merupakan ungkapan yang bertentangan daripada penyampaian yang sebenar dan ia bersifat bahasa yang tidak logik daripada bahasa-bahasa yang lain. Sebagai contoh, seseorang menyatakan ungkapan "*You looks great*". Jika diteliti secara harfiah melalui isyarat lisan dan bukan lisan serta isyarat kontekstual, kemungkinan ayat tersebut boleh ditafsirkan secara ironi. Penggunaan sarkastik sangat bergantung pada situasi penutur dan pendengar. Berdasarkan kenyataan di atas, jelaslah bahawa tidak semua individu bertindak balas dengan cara sarkastik yang sama.

Bertitik tolak dengan kenyataan di atas, jelaslah bahawa terdapat kepelbagaian dalam penggunaan sarkastik serta tujuannya dalam pertuturan. Tambahan pula, bahasa sarkastik itu sememangnya mengandung makna tersirat dan bertentangan dengan kata yang disampaikan oleh seseorang (Akmajian et. al., 2002) sehingga menyebabkan setiap individu mempunyai tahap interpretasi yang berbeza. Setiap ujaran yang disampaikan oleh penutur pula tentunya bergantung kepada keadaan psikologi penutur. Hal ini kerana penggunaan kata yang tersirat ini amat bergantung kepada penerimaan seseorang sama ada kesannya itu diterima secara positif ataupun negatif.

Justeru, memandangkan terdapat perbezaan dari sudut persepsi bahasa sarkastik ini, maka ia telah menarik minat ramai pengkaji untuk mendalami bahasa sarkastik dari sudut pelbagai bidang ilmu khususnya bidang linguistik dan psikologi. Oleh yang demikian, kajian ini dilakukan adalah bertujuan untuk mengenal pasti persepsi terhadap dua aspek yang berkaitan dengan penggunaan bahasa sarkastik iaitu, tahap penggunaan bahasa sarkastik dan kesan penggunaannya.

Objektif Kajian

i. Mengenal pasti tahap penggunaan bahasa sarkastik menerusi dialog yang diadaptasi oleh Bowes dan Katz (2011).
ii. Mengenal pasti kesan penggunaan bahasa sarkastik menerusi dialog yang diadaptasi oleh Bowes dan Katz (2011).

Kaedah Penyelidikan

Reka Bentuk Kajian

Penyelidikan ini menggunakan pendekatan kuantitatif berdasarkan instrumen yang digunakan dalam kajian ini, iaitu satu set soal selidik yang dibangunkan oleh Joel Mounts (2011). Soal selidik ini meliputi 10 soalan dan setiap soalan tersebut mengandung ulasan atau komen daripada responden. Hal ini bertujuan untuk mencapai objektif yang pertama. Bagi mengukur tahap penggunaan bahasa sarkastik soal selidik ini menggunakan kaedah penginterpretasian yang dicadangkan oleh Ratanawalee Wimolmas (2013) seperti yang ditunjukkan dalam jadual 1.

Kategori	Julat Min
Rendah	1.00 – 2.33
Sederhana	2.34 – 3.67
Tinggi	3.68 – 5.00

Jadual 1: Penentuan Tahap Penggunaan Bahasa Sarkastik

Sampel Kajian

Sampel yang terlibat dalam kajian ini merupakan pelajar tahun akhir dalam jurusan Diploma Pengurusan di peringkat Institusi Pengajian Tinggi Swasta (IPTS) dan jumlahnya adalah seramai 50 orang pelajar. Pelajar tahun akhir menjadi fokus kajian kerana golongan ini didapati berada pada angka tertinggi dalam melakukan kerja-kerja sambilan. Justeru, golongan ini lebih cenderung kepada interpersonal (hubungan sesama manusia) khususnya di kolej mahupun di tempat kerja. Selain itu, golongan ini juga mengalami satu proses iaitu

proses pembelajaran dalam kehidupan (Ruhaiza & Nur Hanisah, 2016). Berdasarkan pandangan ini, jelas menunjukkan bahawa golongan ini lebih banyak pendedahan terhadap penggunaan bahasa sarkastik dalam perbualan harian mereka.

Instrumen Kajian

Alat kajian yang digunakan ini terdiri daripada borang soal selidik yang dibina oleh Joel Mount (2011). Borang soal selidik ini terbahagi kepada dua bahagian, iaitu bahagian A dan bahagian B. Bahagian A mengandungi item demografi, iaitu perkara yang melibatkan umur dan jantina pelajar. Bagi bahagian B pula, telah mengandungi 10 soalan yang mengandungi bahagian tahap sarkastik dan kesan penggunaan ayat tersebut berdasarkan skala yang diberikan. Responden dikehendaki memberikan respons kepada setiap item dengan menggunakan skala Likert lima mata mengikut susunan rendah, sederhana rendah, sederhana tinggi, tinggi, dan amat tinggi. Responden perlu membuat penilaian berdasarkan ayat sarkastik yang terdapat pada dialog yang diadaptasi oleh Bowes dan Katz (2011) yang memaparkan dua situasi perbualan harian antara pelajar 1 dan pelajar 2. Berikut merupakan dialog tersebut:

Situasi 1

Pelajar 1 : Kau meniru kertas ujian aku???
Pelajar 2 :Ya, aku mengambil risiko yang tinggi untuk meniru kau, sebab kau kan seorang yang sangat pandai!!!
Pelajar 1 : Mengaku sahajalah yang kau meniru. Aku nampak tadi!
Pelajar 2 : Ya, Kau betul... aku memang suka meniru orang yang bodoh...
Pelajar 1 : Aku tak nak terlibat dengan apa-apa masalah nanti.
Pelajar 2 : Oh, aku minta maaf sangat...
Pelajar 1 : Aku tak nak gagal dalam subjek ini dan aku tak nak kau lakukannya lagi.
Pelajar 2 : Kau betul, aku memang suka meniru.
Pelajar 1 : Jika aku terlibat dengan masalah, aku akan tarik kau sekali!
Pelajar 2 : Takutnya dengan ugutan kau itu!

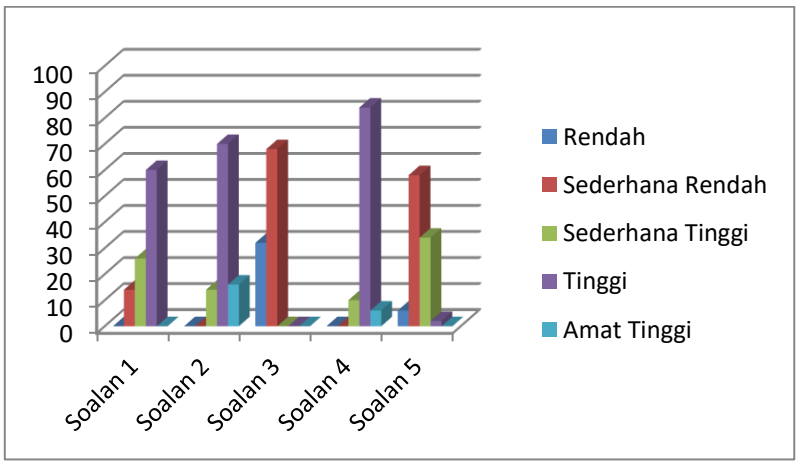
Situasi 2

(Beberapa hari kemudian)
Pelajar 1 :Hai!, aku dengar kau dapat D- dalam ujian yang lepas. Hebat, Einstein!
Pelajar 2 :Aku ingatkan aku dah buat yang terbaik.
Pelajar 1 :Oh,yeke?
Pelajar 2 :Ya, aku sudah mengulangkaji dengan bersungguh-sungguh.
Pelajar 1 :Ya, betul.
Pelajar 2 :Tapi ini cuma kebetulan je. aku memang orang yang pintar
Pelajar 1 :Sepatutnya aku yang meniru jawapan kau.
Pelajar 2 :Aku akan tinggalkan kau kalau kau masih teruskan
Pelajar 1 :Eh, janganlah! Aku nak berbual dengan kau sepanjang hari.
Pelajar 2 :Baiklah.Aku pergi dulu.

Analisis Dapatan Kajian

Tahap Penggunaan Bahasa Sarkastik

Dapatan kajian mengenai tahap penggunaan bahasa sarkastik telah disenaraikan dalam rajah 1.



Rajah 1: Peratusan Tahap Penggunaan Bahasa Sarkastik

Dalam kajian ini, terdapat lima item yang dibina bagi melihat tahap penggunaan bahasa sarkastik berdasarkan dialog yang diberikan. Perkara ini dapat dilihat pada jadual 2 seperti di bawah.

No	Item	R	SR	ST	T	AT
1	Sejauh manakah pelajar 2 bersarkastik dalam dialog 1?	-	14%	26%	60%	-
2	Sejauh manakah pelajar 1 bersarkastik dalam dialog 2?	-	-	14%	70%	16%
3	Bagaimanakah kesesuaian percakapan pelajar 1 dalam dialog 2?	32%	68%	-	-	-
4	Dalam situasi 1, adakah percakapan pelajar 2 terlalu agresif?	-	-	10%	84%	6%
5	Dalam situasi 2, adakah percakapan pelajar 1 terlalu agresif?	6%	58%	34%	2%	-

Jadual 2: Tahap Penggunaan Bahasa Sarkastik

Berdasarkan analisis statistik yang dijalankan pada item 1, didapati seramai 30 orang pelajar (60%) menyatakan pada skala tinggi, 13 orang (26%) pada skala sederhana tinggi dan 7 orang (14%) pada skala sederhana rendah terhadap penggunaan sarkastiknya. Secara keseluruhannya, item 1 telah memperoleh skor (M=3.46) pada tahap sederhana. Berdasarkan pandangan responden, ungkapan "aku memang suka meniru orang yang bodoh" adalah sindiran yang disampaikan secara tidak berlapik dan boleh mengguriskan hati pendengar.Namun, responden mengatakan bahawa ungkapan itu diungkap setelah pelajar 1 masih lagi menyatakan bahawa pelajar 2 meniru akan kertas peperiksaannya. Tindakan tersebut dianggap wajar oleh responden kerana menganggap bahawa pelajar 1 seolah-olah tidak memahami akan maksudnya. Selain itu, terdapat juga responden yang mengatakan bahawa penyampaian sarkastik tersebut telah menjadi satu kebiasaan bagi mereka dalam perbualan harian. Maka, penggunaan sarkastik tersebut tidak memberikan kesan yang mendalam terhadap dirinya.

Kemudian, item kedua telah menunjukkan seramai 35 orang (70%) pada skala tinggi, diikuti 8 orang (16%) pada skala amat tinggi dan akhir sekali, 7 orang (14%) pada skala

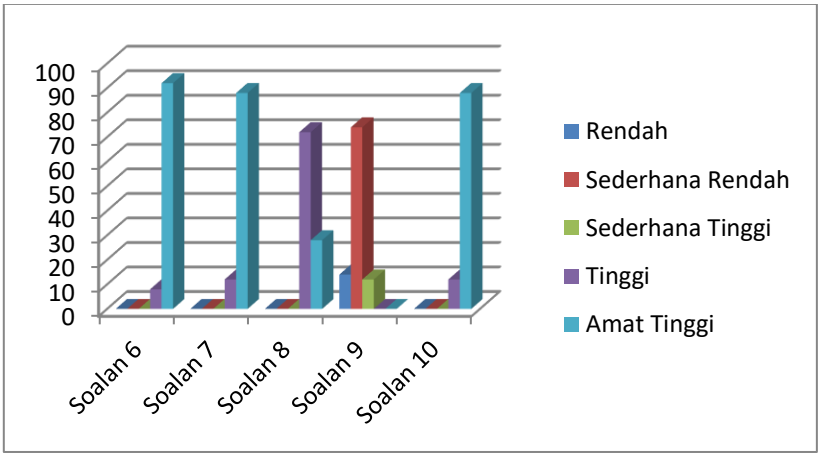
sederhana tinggi. Secara keseluruhannya, keputusan telah mencatatkan skor (M=4.02) pada tahap tinggi. Berdasarkan persepsi responden yang diterima, mereka mengatakan bahawa pelajar 1 telah membuat satu perbandingan yang amat ketara dengan pelajar 2. Perkara ini dapat dilihat pada ujaran "*Hai!, aku dengar kau dapat D- dalam ujian yang lepas... Hebat, Einstein*!." Jika dilihat penggunaan kata "*Einstein*" itu merujuk kepada seorang tokoh yang hebat dan terkenal dalam bidang sains. Namun, responden beranggapan bahawa pelajar 1 tidak sewajarnya membandingkan seorang tokoh yang hebat dengan seorang pelajar yang lemah. Ungkapan tersebut dianggap sebagai satu penghinaan kepada individu tersebut. Hal ini dapat dibuktikan apabila pengakhiran dialog tersebut menunjukkan bahawa pelajar 2 tidak ingin meneruskan perbualannya lagi.

Seterusnya, item ketiga yang merujuk kepada kesesuaian percakapan pelajar 1 dalam dialog 2. Perkara ini dapat dilihat berdasarkan taburan peratusan daripada skala rendah iaitu seramai 16 orang (32%) hingga skala sederhana rendah iaitu seramai 34 orang (68%) sahaja. Secara keseluruhannya, bahagian ini telah mencatatkan skor (M=1.68) pada tahap rendah. Melalui dapatan tersebut, dapat disimpulkan bahawa penyampaian sarkastik oleh pelajar 1 adalah tidak bersesuaian dengan situasi tersebut. Hal ini kerana responden beranggapan bahawa pelajar 2 berkemungkinan dalam keadaan yang kecewa dengan keputusan yang diperoleh. Namun, tindakan pelajar 1 yang telah menyampaikan sarkastik kepada pelajar 2 adalah tidak wajar. Seharusnya, pelajar tersebut perlu memberikan semangat atau dorongan kepada rakannya. Melalui ucapan sarkastik daripada pelajar 1 itu telah menyebabkan kemarahan kepada pelajar 2 sehingga dapat dilihat dalam ungkapan "*Aku akan tinggalkan kau kalau kau masih teruskan*". Ungkapan tersebut dianggap sebagai tanda amaran kepada pelajar 1 untuk tidak meneruskan sarkastiknya lagi.

Bagi item 4 pula, telah menunjukkan seramai 42 orang (84%) pada tahap skala tinggi, diikuti 5 orang (10%) pada tahap skala sederhana tinggi, dan akhir sekali 3 orang (6%) pada tahap skala amat tinggi. Berdasarkan analisis tersebut, secara keseluruhannya telah dicatatkan skor (M=3.96) pada tahap tinggi. Manakala item 5 pula, telah menunjukkan seramai 3 orang (6%) pada tahap skala rendah, 29 orang (58%) pada skala sederhana rendah, 17 orang (34%) pada skala sederhana tinggi, dan akhir sekali 1 orang (2%) pada skala tinggi. Oleh itu, secara keseluruhan bagi item ini telah mencatat skor (M=2.32) iaitu pada tahap rendah. Berdasarkan pandangan responden terhadap item 4 dan 5 ini, responden lebih menilai kepada penggunaan kata yang digunakan dalam sarkastik. Jika dilihat pada situasi 1, pelajar 2 telah menggunakan istilah yang kesat atau kasar terhadap pihak lawannya. Namun begitu, penggunaan tersebut dianggap tidak memberikan kesan yang mendalam terhadap responden seperti yang dinyatakan pada item 1. Perkara ini berbeza dengan situasi 2 yang menunjukkan penggunaan bahasa sarkastik yang disampaikan oleh pelajar 1 lebih secara halus. Akan tetapi, ia memberikan kesan yang mendalam kepada si pendengar.

Kesan Penggunaan Bahasa Sarkastik

Dapatan kajian mengenai kesan penggunaan bahasa sarkastik telah disenaraikan dalam rajah 2.



Rajah 2: Peratusan Bagi Kesan Penggunaan Bahasa Sarkastik

Dalam kajian ini, terdapat lima item yang dibina bagi melihat kesan penggunaan bahasa sarkastik berdasarkan dialog yang diberikan. Perkara ini dapat dilihat pada jadual 3 seperti di bawah.

No	Item	R	SR	ST	T	AT
6	Dalam situasi 2, adakah pelajar 2 berasa marah?	-	-	-	8%	92%
7	Dalam situasi 2, adakah pelajar 2 berasa jengkel?	-	-	-	12%	88%
8	Dalam situasi 1, adakah pelajar 2 berasa hina?	-	-	-	72%	28%
9	Dalam dialog 2, adakah niat pelajar 1 hendak bergurau?	14%	74%	12%	-	-
10	Dalam dialog 2, adakah niat pelajar 1 untuk menyakiti hati pelajar 2?	-	-	-	12%	88%

Jadual 3: Kesan Penggunaan Bahasa Sarkastik

Berdasarkan jadual di atas, jelas menunjukkan bahawa penggunaan bahasa sarkastik sememangnya dapat memberikan kesan yang negatif terhadap golongan remaja. Perkara ini dilihat berdasarkan analisis data yang diperoleh, telah menunjukkan bahawa terdapat empat bahagian yang memperoleh skor min pada tahap tinggi pada keseluruhannya. Antaranya, ialah item 6 yang menunjukkan skor (M=4.92), item 7 telah menunjukkan skor (M=4.88), item 8 menunjukkan skor (M=4.28) dan akhir sekali item 10 menunjukkan skor (M=4.88). Bagi item 9, secara keseluruhannya telah menunjukkan skor (M=1.98) pada skala rendah. Jika dilihat pada item 1 hingga 3, soalan tersebut lebih menunjukkan kepada perasaan sebenar responden terhadap penggunaan bahasa sarkastik berdasarkan situasi yang diberikan.

Namun, jika dilihat pada item soalan 4 dan 5 pula lebih mempersoalkan niat pelajar 1 dalam dialog 2 iaitu niat tersebut adalah bersifat gurauan atau lebih kepada untuk menyakitkan hati pelajar 2. Berdasarkan analisis data yang diperoleh dalam item soalan 4, jelas menunjukkan bahawa niat pelajar 1 untuk bergurau adalah lebih kepada sederhana rendah. Berdasarkan ulasan yang diberikan, responden menyatakan bahawa pelajar 1 sememangnya mempunyai niat untuk menyindir pelajar 2. Bahkan, ada juga yang menyatakan bahawa pelajar 1 mempunyai niat untuk membalas serangan kepada pelajar 2 yang pernah menggunakan sarkastik kepada pelajar 1. Tambahan lagi, ada yang menyatakan bahawa

pelajar 1 mungkin mempunyai niat untuk bergurau. Namun, ia tidak sesuai pada situasi tersebut.

Bagi item 5 pula, responden telah memberikan pandangan bahawa pelajar 1 sememangnya mempunyai niat untuk menyakitkan hati pelajar 2. Kenyataan ini dibuat apabila responden menyatakan bahawa pelajar 2 sememangnya tidak meniru pelajar 1. Hal ini dapat dilihat berdasarkan keputusan yang diperoleh oleh pelajar 2 dan ujaran yang disampaikan oleh pelajar 1 iaitu "*Sepatutnya aku yang meniru jawapan kau*". Oleh itu, responden beranggapan bahawa pelajar 1 tidak sepatutnya bertindak untuk menyindir pelajar 2. Perbuatan tersebut telah menunjukkan bahawa pelajar 1 mempunyai niat untuk menyakiti hati pelajar 2. Tambahan pula, responden melihat bahawa pelajar 2 tidak mahu lagi meneruskan perbualan dengan pelajar 1.

Kesimpulan

Penemuan kajian ini telah menunjukkan bahawa penggunaan bahasa sarkastik telah disampaikan secara jelas ataupun sebaliknya. Perkara ini dapat dilihat berdasarkan penggunaan sarkastik yang disampaikan oleh pelajar 2 dalam situasi 1 yang telah menggunakan sarkastik secara jelas dan penggunaan sarkastik oleh pelajar 1 dalam situasi 2. Sungguhpun begitu, penggunaan bahasa sarkastik sememangnya berfungsi untuk mengejek dan menghina. Kenyataan ini telah disokong oleh Gibbs (2000) yang mengatakan bahawa bahasa sarkastik mempunyai beberapa unsur atau sentimen seperti unsur penghinaan dan ejekan yang boleh menjurus kepada unsur negatif. Oleh yang demikian, kesan daripada penggunaan bahasa tersebut dapat menimbulkan kesan emosi terhadap seseorang. Perkara ini dapat dilihat pada peratusan kesan penggunaan bahasa sarkastik yang diperoleh dapat mempengaruhi emosi bagi golongan remaja.

Sebagai contoh, emosi marah telah memperoleh skor (M=4.92) pada tahap tinggi, perasaan menjengkelkan telah digambarkan pada skor (M=4.88) yang berada pada tahap tinggi, dan akhir sekali perasaan hina juga telah mencatatkan tahap tinggi iaitu pada skor (M=4.28).

Selain itu, sarkastik ini juga mampu untuk menjaga air muka seseorang dengan menjelaskan keadaan yang berlapik walaupun dalam bentuk marah. Perkara ini dapat dilihat pada penyampaian bahasa sarkastik oleh pelajar 2, iaitu pada ujaran "*Ya, aku mengambil risiko yang tinggi untuk meniru kau, sebab kau kan seorang yang sangat pandai!!!*". Selain itu, pelajar 1 juga telah menyampaikan sarkastik secara halus pada situasi 2. Sebagai contoh, "*Hai!, aku dengar kau dapat D- dalam ujian yang lepas... Hebat, Einstein!*". Pernyataan tersebut dianggap sebagai pertuturan sarkastik yang halus kerana ia disampaikan dalam bentuk pujian. Perkara ini dapat dilihat berdasarkan pada item 5 yang mempersoalkan penyampaian sarkastik secara agresif, dan hasilnya memperoleh tahap rendah iaitu pada skor (M=2.32). Kenyataan ini telah disokong oleh Alva (2016) yang menyatakan bahawa bahasa sarkastik sememangnya dapat dituturkan dalam bentuk sindiran halus hingga tajam. Namun, ia bergantung kepada penerimaan pendengar terhadap konteks ayat sarkastik. Hal ini kerana, sarkastik boleh diterima oleh individu yang mempunyai pengetahuan dan pengalaman terhadap penggunaannya (Kreuz et.al., 1999).

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PENGGUNAAN MODEL 3 DIMENSI FASA-FASA BULAN UNTUK MENINGKATKAN PENGUASAAN MURID BAGI KONSEP FASA-FASA BULAN

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***ABSTRAK**:Penyelidikan tindakan ini dijalankan bagi melihat kesan penggunaan model 3 dimensi fasa-fasa Bulan bagi meningkatkan penguasaan murid dalam konsep fasa-fasa Bulan. Kajian ini juga dijalankan bagi melihat jika adanya peningkatan motivasi murid untuk mempelajari konsep fasa-fasa Bulan dengan menggunakan model fasa-fasa Bulan. Selain itu, kajian ini juga dijalankan bagi menambah baik amalan pengajaran penyelidik bagi konsep fasa-fasa Bulan melalui pengaplikasian model fasa-fasa Bulan. Kajian tindakan ini dijalankan secara kualitatif dan kuantitatif. Sampel kajian yang terdiri daripada murid tahun 5. Seramai 37 orang murid yang berprestasi sederhana daripada jumlah keseluruhan 236 orang murid tahun 5 di sebuah sekolah di Cheras telah dipilih sebagai sampel kajian. Kajian ini menggunakan model 3D fasa-fasa Bulan sebagai pemboleh ubah tidak bersandar dan pencapaian ujian pasca sebagai pemboleh ubah bersandar. Kajian ini menggunakan dua set ujian objektif untuk ujian pra dan pasca, borang soal selidik untuk melihat tahap penerimaan murid terhadap penggunaan model fasa-fasa Bulan, analisis bilangan soalan yang dapat dijawab pada lembaran latihan pengukuhan dan temu bual murid secara separa berstruktur. Analisis data dilakukan menggunakan statistik inferensi dan statistik deskriptif. Hasil dapatan kajian menunjukkan wujudnya perbezaan yang signifikan bagi min pencapaian murid dalam ujian pra dan pasca. Manakala tahap penerimaan murid terhadap model fasa-fasa Bulan adalah pada tahap sederhana positif. Secara keseluruhan, penggunaan model fasa-fasa Bulan memberi sumbangan dalam meningkatkan penguasaan murid bagi konsep fasa-fasa Bulan.*

PENGENALAN

Kurikulum Sains sekolah rendah bertujuan untuk menyemai minat murid terhadap sains dan teknologi dan memberi asas pengetahuan dan kemahiran sains dan teknologi. Subjek Sains merupakan salah satu subjek teras yang yang telah dipelajari oleh murid oleh semua murid sekolah rendah, bermula dari Tahun 1 hingga ke Tahun 6. Penguasaan murid dalam memahami konsep-konsep sains amat penting bagi memastikan tidak wujud miskonsepsi dalam tajuk-tajuk sains yang telah dipelajari oleh murid.

Namun, apa yang berlaku di negara kita adalah kebanyakan guru lebih mementingkan penghafalan fakta ketika sesi pengajaran dan pemudahcaraan (PdPc) dengan melalukan pengulangan dan latih tubi bersama murid. Kesan daripada penghafalan fakta ini akan menyebabkan murid kurang berfikir secara kritis dan kreatif. Oleh itu, kajian ini dijalankan bagi memfokuskan kepada masalah penguasaan konsep fasa-fasa Bulan bagi murid Tahun 5. Konsep fasa-fasa Bulan ini adalah di bawah tema Menyiasat Bumi Dan Alam Semesta, di bawah tajuk Fasa-Fasa Bulan seperti yang terkandung dalam spesifikasi kurikulum Sains

tahun 5, KPM (2012).

Oleh itu, penggunaan model berbentuk 3 dimensi iaitu Model Fasa-Fasa Bulan digunakan bagi membolehkan murid membuat visualisasi terhadap bagaimana sumber cahaya dapat mempengaruhi turutan fasa-fasa bulan. Model Fasa-Fasa Bulan ini direka adalah kerana disamping ianya kelihatan menarik, ia mampu membuatkan murid berfikir bagaimana pantulan cahaya dari sudut yang berbeza menghasilkan imej yang berbeza pada bola ping-pong yang ada di dalam model tersebut. Dengan ini, ia membolehkan murid membuat visualisasi tentang fasa-fasa Bulan tersebut. Safarin, Sukri & Kamalularifin (2007) menyatakan penggunaan pemodelan bahan 3D dalam pengajaran dipercayai mampu membantu para murid di pelbagai peringkat pendidikan untuk menguasai kemahiran visualisasi. Ini kerana, bahan konkrit adalah efektif bagi mencetuskan pemikiran murid (Chai 2012). Selain itu, penggunaan model 2D dan 3D dalam sesi PdPc berupaya membolehkan murid menjelaskan konsep, menyusun turutan dan mengintegrasi tajuk yang dipelajari oleh murid (Hoban, Loughran & Nielsen, 2011).

Selain itu, Choong (2008) menyatakan bahawa Teori Perkembangan Kognitif yang dipelopori oleh Jean Piaget membahagikan perkembangan kognitif kepada empat peringkat iaitu peringkat sensorimotor, pra operasi, operasi konkrit, dan peringkat operasi formal. Pada peringkat umur 7-11 tahun, iaitu peringkat konkrit dan peringkat operasi formal (11-15 tahun) murid-murid sudah berupaya berfikir secara logik dan menyelesaikan masalah tetapi masih lagi terbatas kepada sesuatu yang bersifat nyata. Oleh itu, bagi mengukuhkan kefahaman dan penguasaan konsep Sains, penggunaan alat bantu mengajar dan bahan maujud dalam aktiviti PdPc merupakan satu kaedah yang amat berkesan dalam perkembangan kognitif murid-murid, khususnya murid-murid sekolah rendah sebelum mereka dapat berfikir secara abstrak.

Terdapat tiga soalan yang dijawab oleh kajian ini iaitu; (1) bagaimanakah penggunaan Model Fasa-Fasa Bulan dapat meningkatkan tahap penguasaan pelajar dalam mempelajari konsep fasa-fasa Bulan; (2) bagaimanakah penggunaan model fasa-fasa Bulan dapat menarik minat dan meningkatkan motivasi pelajar bagi mempelajari konsep fasa-fasa Bulan; dan (3) bagaimanakah pengaplikasian Model Fasa-Fasa Bulan dapat menambah baik amalan pengajaran penyelidik bagi konsep fasa-fasa Bulan?

Kajian Literatur

Teori-Teori Berkaitan Penggunaan Model 3d

Kajian ini dijalankan berdasarkan teori pembelajaran konstruktivisme. Ia menekankan pembinaan pengetahuan oleh murid. Murid dapat membina kefahaman mereka sendiri dalam sesuatu topik yang yang telah dipelajari oleh murid berbanding dengan mendapatkannya kefahaman yang dipindahkan kepada mereka melalui sumber lain (Eggen dan Kauchak 2004).

Selain itu, Zurainu & Abdull Sukor (2012) menyatakan bahawa pendekatan konstruktivime merupakan satu pendekatan kepada pendidikan abad ke-21. Pendekatan ini hanya menjadikan guru sebagai pemudahcara, manakala murid akan membina pengetahuan bersama rakan sebaya dengan mengaitkan pembelajaran terdahulu dengan pembelajaan semasa. Perkara ini bertepatan dengan teori konstruktivisme, iaitu murid membina kerangka kognitif yang baru berdasarkan pengalaman yang dibina semasa proses PdPc. Jean Piaget (1976), dalam bukunya ‘To Understand is to Invent: The Future of Education’ juga menjelaskan bahawa pengetahuan berkembang hasil daripada pembinaan pengetahuan individu selepas pemahaman individu tersebut.

Pelaksanaan Pengajaran Konsep Fasa-Fasa Bulan Menggunakan Model 3d

Berdasarkan ujian pra, didapati murid sukar untuk menyatakan faktor yang menyebabkan fasa-fasa Bulan berlaku, membezakan bentuk fasa-fasa Bulan, melukis susunan fasa-fasa Bulan yang betul dan menamakan fasa-fasa Bulan. Ada juga murid yang didapati tidak berminat memmuridi konsep ini.

Oleh itu, guru telah mengambil tindakan dengan merangka Model Fasa-Fasa Bulan. Kajian ini dilaksanakan dengan berpandukan model Stephen Kemmis (1988). Model Stephen Kemmis ini merupakan satu corak penyelidikan yang dilakukan secara kolaboratif dalam satu situasi sosial yang kecil. Model ini terdiri daripada empat proses iaitu perancangan, pelan tindakan, pengumpulan data dan membuat analisis data beserta refleksi.

Metodologi

Reka bentuk kajian ini ialah penyelidikan tindakan bagi meninjau penggunaan model fasa-fasa Bulan untuk meningkatkan pencapaian murid dalam topik fasa-fasa Bulan dengan menggunakan kaedah kuantitatif dan kualitatif untuk mendapatkan data kajian. Model Stephen Kemmis ini merupakan satu corak penyelidikan yang dilakukan secara kolaboratif dalam satu situasi sosial yang kecil. Tujuannya adalah untuk meningkatkan kesedaran penyelidik terhadap amalan-amalannya di mana amalan-amalan itu berlaku melalui pemeriksaan tindakan penyelidik secara kritikal dan memperbaiki amalan penyelidik untuk mencapai matlamat yang dipersetujui bersama (Ting *et al*,2013). Model ini terdiri daripada empat proses iaitu perancangan, pelan tindakan, pengumpulan data dan membuat analisis data beserta refleksi.Tempoh penyelidikan tindakan ini dilaksanakan selama 6 minggu. Murid akan menggunakan model fasa-fasa Bulan dengan formula fasa-fasa Bulan dan video animasi 2D bagi menambahkan lagi kefahaman murid mengenai konsep fasa-fasa Bulan ini.

Sampel Kajian

Sampel kajian terdiri daripada 37 orang murid daripada 236 orang murid Tahun 5 di salah sebuah sekolah di Cheras. Murid daripada kelas 5D iaitu kelas berprestasi sederhana terpilih sebagai kumpulan rawatan. Murid terdiri daripada 15 orang murid murid dan 22 orang murid perempuan.

Instrumen Kajian

Pengkaji menggunakan pelbagai bentuk instrumen yang boleh menyokong kajian ini. Disebabkan kajian ini menggunakan reka bentuk penyelidikan tindakan yang menggunakan kaedah kuantitatif dan kualitatif, instrumen kajian ini terdiri daripada soal selidik, ujian pencapaian (ujian pra dan ujian pasca), protokol temu bual dan pemerhatian prestasi murid daripada latihan pengukuhan.

Tatacara Permerolehan Data

Sebelum model fasa-fasa Bulan digunakan dalam PdPc, murid-murid akan diberikan ujian pra berkenaan konsep fasa-fasa Bulan yang telah yang telah dipelajari oleh murid. Ujian ini dijalankan bagi mengetahui tahap pencapaian awal murid sebelum kajian dijalankan. Setiap kitaran kajian dijalankan selama 2 minggu. Pada kitaran 1, pengajaran dan pembelajaran dengan hanya menggunakan model 3D fasa-fasa Bulan telah dijalankan. Pada kitaran 2, penggunaan model fasa-fasa Bulan digabungkan dengan penggunaan formula fasa-fasa Bulan. Pada kitaran 3 pula, penggunaan video animasi 2D digabungkan dengan penggunaan model 3D fasa-fasa Bulan sebagai penambahbaikan intervensi.

Pada hujung setiap kitaran, pemerhatian terhadap jawapan murid pada lembaran latihan pengukuhan telah dilakukan. Aras soalan pada latihan pengukuhan daripada kitaran 1 kepada kitaran 3 adalah semakin sukar. Temu bual separa berstruktur juga dijalankan secara rawak kepada 5 orang murid selepas intervensi pada kitaran 3 dilakukan. Setelah intervensi kitaran 3 dijalankan, murid-murid akan diberikan ujian pasca untuk melihat sama ada terdapat peningkatan pencapaian selepas pengajaran menggunakan model fasa- fasa Bulan dilaksanakan. Borang soal selidik juga diedarkan kepada murid bagi mengetahui sejauh mana penggunaan model fasa-fasa Bulan dapat membantu meningkatkan penguasaan murid disamping meningkatkan motivasi mereka bagi memmuridi konsep tersebut.

Tatacara Penganalisisian Data

Analisa data dilakukan secara statistik inferensi dan statistik deskriptif. Statistik inferensi yang digunakan dalam kajian ini ialah Ujian-t. Statistik deskriptif menggunakan min dan sisihan lazim bagi menjawab persoalan-persoalan berkaitan tahap penerimaan murid terhadap penggunaan model 3D fasa-fasa Bulan dalam pengajaran dan pembelajaran konsep fasa-fasa Bulan. Analisis temu bual dan pemerhatian pada jawapan lembaran latihan pengukuhan dilakukan dengan membuat rumusan secara deskriptif.

Dapatan Kajian

Bagi menjawab persoalan pertama kajian, ujian statistik inferensi telah dijalankan. Temu bual secara rawak juga telah dijalankan untuk mengukuhkan dapatan kajian ini.

Ho1: Tidak terdapat perbezaan yang signifikan dari segi min pencapaian murid dalam ujian pra dan ujian pasca

Hipotesis ini adalah bagi melihat jika wujud perbezaan yang signifikan dari segi min pencapaian murid dalam ujian pra dan ujian pasca. Jadual 1 menunjukkan keputusan ujian-t (37) = -10.769 dan p = .000 < 0.05. Min ujian pra ialah 39.7, manakala min ujian pasca pula ialah 52.7 di mana perbezaan min ialah 13. Oleh itu terdapat perbezaan yang signifikan dari segi min pencapaian murid dalam ujian pra dan ujian pos. Justeru, hipotesis nol ditolak dan hipotesis alternatif diterima. (Rujuk Jadual 1)

JADUAL 1. Ujian-t menentukan perbezaan min pencapaian murid dalam ujian pra dan ujian pasca

Ujian	N	Min	Sp	Dk.	t.	Sig.
Pra	37	39.6857	11.101	36	-10.769	.000
Pasca	37	52.7100	11.237	36	-10.769	.000

P < 0.05

Data hasil analisis kedua-dua ujian pra dan ujian pasca ini dinilai bagi menguji keberkesanan penggunaan model fasa-fasa Bulan. Keputusan ujian pra dan pasca dinilai mengikut gred sistem analisis peperiksaan sekolah, KPM (2011). Melalui jawapan murid di dalam ujian pra dan pasca ini, pengkaji dapat mengetahui pengajaran dan pembelajaran menggunakan model fasa-fasa Bulan memberikan sumbangan positif terhadap pencapaian murid dalam memmuridi konsep fasa-fasa Bulan. Dapatan kajian menunjukkan terdapat peningkatan pencapaian yang ketara dalam ujian pasca berbanding ujian pra.

Bagi menjawab persoalan kedua dan ketiga iaitu bagaimanakah penggunaan model fasa-fasa Bulan dapat menarik minat dan meningkatkan motivasi pelajar bagi mempelajari

konsep fasa-fasa Bulan serta bagaimanakah pengaplikasian Model Fasa-Fasa Bulan dapat menambah baik amalan pengajaran penyelidik bagi konsep fasa-fasa Bulan, soal borang selidik telah diedarkan kepada murid setelah selesai intervensi pada kitaran ketiga. Jadual 2 merupakan keputusan analisis soal selidik.

JADUAL . Analisis soal selidik tahap penerimaan murid terhadap penggunaan model fasa-fasa Bulan

Item	Min	Sisihan Piawai
Saya lebih mudah mengingati susunan fasa-fasa bulan selepas melakukan aktiviti menggunakan model fasa-fasa bulan.	3.84	.9863
Saya lebih mudah memahami bagaimana fasa-fasa bulan berlaku selepas melakukan aktiviti menggunakan model fasa-fasa Bulan.	3.68	.9145
Saya dapat menceritakan bagaimana fasa-fasa bulan berlaku dengan betul.	2.62	1.0891
Saya suka apabila guru mengajar menggunakan model fasa-fasa Bulan	4.11	.6986
Saya lebih mudah menjawab soalan fasa-fasa bulan selepas melakukan aktiviti menggunakan model fasa-fasa bulan.	3.0	1.016
Saya dapat mengingati dan menyatakan kelapan-lapan fasa bulan yang telah yang telah dipelajari oleh murid.	3.78	.8861
Jumlah	3.5	.9317

Berdasarkan kepada taburan skor min item tahap penerimaan murid terhadap penggunaan model fasa-fasa Bulan yang diperoleh, didapati 4 daripada 6 item mempunyai skor min tinggi adalah item berkaitan dengan saya lebih mudah mengingati sususnan fasa-fasa Bulan selepas menggunakan model fasa-fasa Bulan (skor min = 3.84). Saya lebih mudah memahami bagaimana fasa-fasa Bulan berlaku selepas melakukan aktiviti menggunakan model fasa-fasa Bulan (skor min = 4.11). Saya suka apabila guru mengajar menggunakan model fasa-fasa Bulan (skor min = 3.78) dan saya dapat mengingati dan menyatakan kelapan-lapan fasa Bulan yang telah yang telah dipelajari oleh murid (skor min = 3.78).

Secara keseluruhan skor min tahap penerimaan murid terhadap penggunaan model

fasa-fasa Bulan dalam proses pengajaran dan pembelajaran konsep fasa-fasa Bulan ialah 3.50. Berdasarkan interpretasi min, didapati tahap penerimaan murid terhadap penggunaan model fasa-fasa Bulan dalam proses pengajaran dan pembelajaran konsep fasa-fasa Bulan berada pada tahap sederhana positif.

Hasil pemerhatian pengkaji menggunakan pada jawapan lembaran latihan pengukuhan untuk mengukur respon murid selepas menggunakan model fasa-fasa Bulan pada setiap kitaran kajian juga menunjukkan respon yang positif, bermula dengan soalan yang beraras mudah (menamakan fasa-fasa Bulan) kepada soalan beraras sederhana (melukis fasa-fasa Bulan) hinggalah kepada soalan beraras sukar (melukis dan menamakan fasa-fasa Bulan). Maka dengan ini, dapatlah dirumuskan bahawa penerimaan murid terhadap penggunaan model fasa-fasa Bulan adalah positif.

Berdasarkan temu bual separa berstruktur yang telah dijalankan juga jelas menunjukkan bahawa murid lebih berminat dan bermotivasi untuk murid-murid mempelajari konsep fasa-fasa Bulan, disamping dapat menambahkan kefahaman terhadap fenomena fasa-fasa Bulan.

Perbincangan

Setelah data yang dikumpul diproses dan dinilai, maka dapatlah dirumuskan bahawa terdapatnya peningkatan dari segi tahap penguasaan murid dalam konsep fasa-fasa Bulan ini. Hal ini terbukti melalui peningkatan markah ujian pasca berbanding ujian pra serta hasil yang positif pada jawapan murid melalui lembaran latihan pengukuhan. Hal ini juga disokong melalui dapatan daripada borang soal-selidik dan analisis temu bual separa berstruktur yang dijalankan secara rawak kepada 5 responden selepas melalui proses intervensi dalam tempoh 6 minggu menggunakan Model Fasa-Fasa Bulan.

Dari aspek kekuatan, pengkaji mendapati bahawa penggunaan Model Fasa-Fasa Bulan ini dapat membantu murid membuat visualisasi tentang bagaimana pantulan cahaya daripada cahaya Matahari dan kedudukan Bulan semasa mengelilingi Bumi boleh mempengaruhi bentuk Bulan yang dapat dilihat dari Bumi. Ini kerana, mustahil kita dapat ke angkasa lepas untuk melihat secara terus bagaimana proses perubahan fasa-fasa Bulan ini berlaku. Disamping dapat membantu peserta kajian membuat visualisasi, penggunaan Model Fasa-Fasa Bulan juga dapat menambahkan minat murid dalam memmuridi konsep fasa-fasa Bulan.

Meskipun begitu, masih terdapat kelemahan yang boleh diperbaiki pada pengaplikasian Model Fasa-Fasa Bulan ini, iaitu kadar keterangan cahaya lampu suluh perlu ditingkatkan supaya pantulan cahaya yang terhasil pada bola ping-pong yang terdapat di dalam Model Fasa-Fasa Bulan kelihatan lebih jelas. Tempat intervensi dijalankan juga mempengaruhi keterangan cahaya pantulan yang terhasil pada bola ping-pong. Pengkaji perlu melaksanakan intervensi di tempat yang kurang terdedah pada cahaya bagi memastikan Model Fasa-Fasa Bulan dapat digunakan dengan baik.

Antara penambahbaikan boleh dilakukan pada Model Fasa-Fasa Bulan ini. Antaranya ialah lampu suluh yang lebih berkualiti boleh digunakan bagi memastikan cahaya yang dipancarkan ke dalam Model Fasa-Fasa Bulan cukup terang bagi menghasilkan pantulan cahaya yang jelas pada bola ping-pong.

Implikasi Kajian

Antara kemajuan yang ditunjukkan oleh peserta kajian adalah mereka dapat melukis dan menamakan fasa-fasa Bulan di dalam instrumen ujian, lembaran latihan pengukuhan dan menyatakan fasa-fasa Bulan ketika temu bual. Mereka juga bersetuju bahawa penggunaan Model

Fasa-Fasa Bulan ini dapat membantu mereka mengingati kelapan-lapan fasa Bulan, memahami bagaimana fasa-fasa Bulan boleh berlaku dan menceritakan bagaimana boleh berlakunya fasa-fasa Bulan.

Dapatan kajian oleh Hayazi (2008) menjelaskan betapa pentingnya alat bantu mengajar dalam merangsang perkembangan potensi individu supaya mencapai tahap maksimum dalam pendidikan. Justeru, penggunaan alat bantu mengajar Model Fasa-Fasa Bulan yang telah digunakan dalam menjalankan sesi PdPc terhadap peserta kajian menunjukkan kesan-kesan yang positif telah membuktikan bahawa penggunaan Model Fasa-Fasa Bulan telah membantu murid dalam meningkatkan tahap penguasaan mereka.

Sebelum pengkaji melaksanakan sebarang intervensi, pengkaji telah menjalankan sesi PdPc menggunakan teknik "*chalk and talk*" dan hanya menggunakan gambar fasa-fasa Bulan sebagai alat bantu mengajar. Pengkaji mendapati bahawa murid tidak memberikan respon yang positif semasa sesi PdPc dan menunjukkan riak wajah yang membosankan. Hasil ujian pasca juga mendapati bahawa markah murid kebanyakannya juga berada di dalam gred B dan C.

Setelah mengaplikasikan Model Fasa-Fasa Bulan ini, didapati bahawa murid menyukai penggunaan Model Fasa-Fasa Bulan ini melalui respon mereka di dalam borang soal selidik dan sesi temu bual yang telah dijalankan. Malah, ada antara murid yang menyatakan penggunaan Model Fasa-Fasa Bulan inilah yang menjadi faktor untuknya menyukai pembelajaran tajuk Fasa-Fasa Bulan ini. Respon yang positif juga dapat dilihat pada peningkatan markah ujian pasca serta jawapan murid pada lembaran latihan pengukuhan 1, 2 dan 3.

Bertepatan dengan kajian yang dijalankan oleh Mohd Firdaus (2008) yang menunjukkan penggunaan alat bantu mengajar dalam pembelajaran dapat menarik minat murid dan mengukuhkan kefahaman murid terhadap kandungan pembelajaran. Penggunaan alat sebenar sebagai alat bantu mengajar mestilah dianggap sebagai suatu bahan yang padu, bertujuan untuk menambahkan kelancaran proses pengajaran dan memudahkan kefahaman murid untuk memahami sesuatu pembelajaran dengan lebih berkesan. Dalam kajian Abu Safian (2011), alat bantu mengajar merupakan intipati dalam membantu guru bagi melicinkan dan melancarkan pengajaran dalam usaha memudahkan murid memahami konsep, isi dan fakta dalam PdPc. Oleh itu, alat bantu mengajar merupakan rangsangan terbaik dalam PdPc di mana melalui penggunaannya, ia dapat menentukan kejayaan sesuatu proses PdPc yang sedang berlangsung.

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APLIKASI DAN PERSEPSI PEMBELAJARAN BERASASKAN PROJEK BIDANG SENI DIGITAL DI INSTITUSI PENGAJIAN TINGGI DI MALAYSIA

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Abstrak: *Tujuan kajian ini adalah untuk mengenal pasti aplikasi Pembelajaran Berasaskan Projek (PBP) dalam pengajian seni digital di institusi pengajian tinggi (IPT). Persepsi beberapa orang pensyarah yang terlibat diambil kira untuk melihat kesan PBP kepada pelajar-pelajar dalam pengajaran dan pembelajaran. Kajian ini menggunakan reka bentuk kajian kes kualitatif. Kaedah yang digunakan untuk mengumpul maklumat adalah temu bual, pemerhatian dan analisis dokumen. Kebolehpercayaan data dilakukan melalui triangulasi dan penilaian tiga orang pakar. Informan kajian adalah terdiri daripada lima orang pensyarah daripada lima buah IPT di semenanjung Malaysia yang menjadi tenaga pengajar dalam bidang seni grafik, multimedia dan animasi. Dapatan kajian menunjukkan persepsi pensyarah terhadap PBP dapat dilihat daripada aspek tugasan berorientasikan produk, asas kemahiran, pembelajaran bersepadu, dan pembelajaran autentik. Manakala aplikasi PBP dilihat daripada aspek rancangan tugasan, proses perkembangan idea, sesi kritikan, konsultansi, pembentangan dan pameran seni. Dapatan juga menunjukkan penekanan PBP terhadap pembelajaran yang berorientasikan industri dapat membentuk pelajar-pelajar yang inovatif dan produktf. Hal ini secara tidak langsung menunjukkan konsep PBP mampu dijadikan sebagai salah satu pendekatan alternatif dalam pembelajaran dan pengajaran bagi membina modal insan pada abad ke-21 ini.*

Kata Kunci: Pembelajaran Berasaskan Projek, pensyarah, aplikasi dan persepsi.

Pengenalan

Matlamat pengajian tinggi di Malaysia adalah memenuhi tuntutan negara bagi menyediakan sumber tenaga manusia yang mahir dan berkelayakan, sesuai dengan keperluan negara yang sedang pesat membangun ini. Justeru itu, sememangnya tidak dapat dinafikan sesebuah insitusi pengajian tinggi memainkan peranan yang penting bagi merealisasikan matlamat ini dengan memastikan sumber manusia yang dilahirkan mampu memberi sumbangan kepada masyarakat dan negara. Kepakaran ahli-ahli akademik dalam sesuatu bidang merupakan elemen penting bagi melahirkan para gradúan yang berkualiti dalam menyiapkan diri untuk menempuh alam pekerjaan yang sebenar pada abad ke-21 ini. Beberapa buah insitusi

pengajian tinggi awam dan swasta di Malaysia telah diwujudkan bagi menawarkan pelbagai jenis kursus yang bersesuaian

Dengan kehendak industri itu sendiri. Setiap institusi pengajian tinggi (IPT) mempunyai fokus dan matlamat yang tertentu termasuklah bidang penyelidikan, kemahiran dan teknikal, sains dan perubatan, pendidikan, pengurusan, dan sebagainya. Sistem pengajaran dan pembelajaran yang diterapkan adalah berbeza mengikut matlamat IPT dan ahli-ahli akademik masing-masing. Peredaran zaman dan perkembangan perubahan sistem pendidikan di Malaysia telah memberi kesan kepada kebolehan para pensyarah bagi memikul tanggungjawab sebagai pendidik. Analisis terhadap perkembangan kualiti dan ramalan tentang masa depan sesuatu sistem pendidikan bermula dengan mengenalpasti isu dan masalah utama yang dihadapi dalam aspek pengajaran dan pembelajaran. Secara keseluruhannya, terdapat beberapa isu yang dihadapi oleh universiti tempatan termasuklah mutu pengajaran dan kualiti siswazah yang dilihat dari sudut proses dan produk, iklim dan budaya mengajar, pengubahsuaian kurikulum, pendekatan pengajaran dan bahasa pengantar. Pelbagai faktor yang sebahagian besarnya bergantung kepada latar demografi pelajar dan pengalaman serta kecekapan pensyarah (Robiah Sidin, 2000). Selain itu juga, terdapat kemungkinan pembelajaran yang berlaku tidak memenuhi syarat dan gagal mencapai kehendak sebenar pentakrifan pendidikan. Secara ringkas, komponen asas yang mesti dipenuhi untuk menghasilkan pembelajaran ialah pelajar, perkara yang dipelajari yang bersifat kandungan atau pengalaman pembelajaran, kaedah dan hasil dari perubahan yang kekal secara relatif (Noor Hisham Md Nawi, 2011). Tugas sebagai seorang pensyarah dalam proses pengajaran dan pembelajaran bukan sahaja menyampaikan ilmu tetapi juga melahirkan pelajar yang holistik dan memenuhi keperluan pasaran.

Kaedah pengajaran yang lazimnya digunakan oleh pensyarah di institusi pengajian tinggi adalah seperti perbincangan, seminar, tutorial, lawatan, Pembelajaran Berasaskan Masalah dan termasuklah PBP ini. Lazimnya, pensyarah tidak akan menggunakan satu kaedah sahaja, malah menggabungkan dua atau lebih teknik pengajaran bagi menyesuaikan pengajarannya dengan kesediaan pelajar. Kajian ini mengkaji aplikasi dan persepi pensyarah yang menggunakan strategi PBP samada secara total atau secara sampingan dalam pembelajaran dan pengajaran mereka. Ini bermaksud pensyarah menggunakan kaedah pengajaran dan pembelajaran untuk tugasan secara berkumpulan dan individu dalam jangka masa yang panjang atau sebarang tugasan harian yang bercirikan PBP akan diambil kira. Kajian ini memberi fokus kepada bebeapa institusi pengajian yang menawarkan kursus pengajian seni seperti di Universiti Teknologi Mara (UiTM), Universiti Sains Malaysia (USM), Universiti Pendidikan Sultan Idris (UPSI), Universiti Multimedia (MMU), Universiti Malaysia Sarawak (UNIMAS) dan lain-lain. Institusi pendidikan adalah tempat disiplin keilmuan seni menjalani proses diuji, atau dikaji kebenaran pengetahuannya agar terbentuk satu gagasan pemikiran hasil pengkaedahan terkawal: segalanya adalah berkenaan kecerdasan dan pemikiran kritikal (Badrolhisham, 2011). Pendidikan seni visual dapat dilihat sebagai satu usaha terencana untuk menanam dan membentuk model-model pengetahuan pilihan dalam proses pelaksanaannya mempertimbangkan perkembangan fizik dan kejiwaan manusia sehingga terbentuk atau berubah perilakunya: mereka menjadi mampu berfikir, menghayati, menginterpretasi, dan manfaatkan sumber daya yang ada dalam lingkungannya untuk meningkatkan taraf kehidupan peribadi dan masyarakat (Badrolhisham, 2011). Kewujudan pelbagai strategi pengajaran dan pembelajaran didalam seni visual sememangnya telah menjadi panduan kepada pensyarah bagi membolehkan setiap proses pembelajaran dan

pengajaran dijalankan dengan lebih efektif untuk melahirkan pelajar yang produktif dan inovatif serta berdaya saing.

Sorotan Literatur

Seni digital atau seni komputer diistilahkan sebagai penghasilan karya seni menggunakan komputer atau peralatan digital yang berkaitan. Sebagai cabang seni elektronik, seni komputer juga dikenali sebagai media baru, multimedia, seni gabungan *(hybrid art)*, seni digital, dan seni siber atau seni laman (Hasnul & Rajah, 2000). Kajian yang dijalankan ini menggunakan istilah seni digital bagi mewakili bidang pengajian seni grafik, multimedia dan animasi. Perkataan 'projek' yang digunakan dalam kajian ini merupakan kata kunci utama dalam istilah PBP. Menurut Kamus Dewan Edisi Keempat (2010), projek bermaksud rancangan kerja atau aktiviti pembangunan yang hendak dijalankan atau sedang dijalankan dan kajian terperinci tentang sesuatu bidang atau subjek.

Menurut Poh dalam Aiedah, A. K. dan Audrey Lee, K. C. (2012) pula, projek ditakrifkan sebagai tugas, pembinaan, atau siasatan yang teratur yang akan menjurus kepada matlamat yang spesifik. Selain itu, projek juga boleh dibuat berdasarkan keperluan topik dan mengikut minat pelajar. Pengajaran dan pembelajaran berasaskan projek boleh dilakukan secara individu atau berkumpulan di bawah bimbingan tenaga pengajar. Projek yang dijalankan hendaklah memberi tumpuan kepada aktiviti-aktiviti, produk, persembahan, dan persembahan yang mencabar kemahiran kognitif dan pembelajaran pelajar. PBP dahulunya terkenal dalam latihan pra-profesional dalam bidang perubatan, sains, teknologi, kejuruteraan dan matematik sejak tahun 1970-an dan telah dibangunkan untuk amalan-amalan ke kelas rendah dan menengah (Buck Institute, 2005; Knoll, 1997). Namun demikian, Tretten dan Zachariou (1997) melaporkan pemerhatian mereka terhadap PBP di beberapa kelas, kepelbagaian praktis dibawah PBP telah membuatkan ia sukar untuk mengetahui apa yang dikatakan sebagai PBP ataupun adakah yang diperhati itu adalah projek sebenar. PBP menggabungkan cabaran sebenar yang memberi tumpuan kepada masalah autentik di mana penyelesaian sesuatu masalah yang mempunyai potensi untuk dilaksanakan. Thomas (2000) pula berpendapat pelajar meneroka dan mempelajari konsep dan aplikasi melalui projek di mana projek-projek yang tidak direka bentuk berdasarkan kurikulum tidak dianggap sebagai PBP. Beliau juga menyatakan terdapat lima ciri-ciri PBP termasuklah berasaskan kurikulum, berpusatkan pelajar, konstruktivis, autonomi, dan realisme.

Terdapat pelbagai istilah yang digunakan oleh pengkaji untuk menerangkan ciri-ciri PBP. Antaranya PBP adalah suatu model *instructional* yang menggunakan kemahiran spesifik supaya sesuatu produk atau artifak yang autentik dapat dihasilkan (Thomas 2000; Grant 2002; Clark 2006; Bell 2010). Chapin (2007) menjelaskan hampir kesemua aktiviti PBP melibatkan pilihan elemen yang dilakukan oleh pelajar itu sendiri di mana mereka bebas untuk menentukan hala tuju pembangunan dan perlaksanaan projek yang dihasilkan. Dengan penglibatan pelajar secara sepenuhnya dapat meningkatkan tahap kefahaman dan daya ingatan terhadap kandungan dan proses dalam penghasilan projek yang telah mereka lakukan. Semestinya dalam pendidikan komponen utama proses pembelajaran adalah dalam bentuk penghasilan karya dan kerja tangan seni seperti melukis, mereka bentuk dan pembuatan kraftangan tradisional. Sunal dan Haas (2008) menyatakan dengan cara meminta pelajar untuk membuat sesuatu yang membolehkan mereka untuk berlatih pemindahan pembelajaran secara konseptual kepada konteks yang baru dapat menilai sejauh mana pemikiran kritis dapat dicapai oleh para pelajar. Selain itu menurut Iltar (2014), PBP merupakan metod yang berasaskan prinsip saintifik dan menggalakkan pelajar menjelajah pembelajaran,

meningkatkan strategi metakognitif kualiti kehidupan dan menghasilkan produk yang realistik mengikut permasalahan autentik. Fokus kajian ini adalah
mengkaji pemahaman dan aplikasi PBP oleh pensyarah. Ciri-ciri PBP telah diadaptasi daripada dokumen *Project-Based Learning Handbook, Educating the Millennial Learner* (2006) Bahagian Teknologi Pendidikan terbitan Kementerian Pelajaran Malaysia dan *Gold Standard PBL: Essential Project Design Elements, Buck Institute of Education* (2015). Didalam kajian ini, PBP dalam bidang seni digital dikaitkan dengan beberapa komponen yang signifikan iaitu tugasan berorientasikan produk atau artifak, pembelajaran sistematik, pembelajaran bersepadu, asas kemahiran, dan penilaian autentik. Tugasan berorientasikan produk dapat dilihat daripada hasil pembelajaran yang melibatkan pengeluaran produk kreatif mengikut silibus yang ditetapkan oleh sesebuah institusi. Seterusnya pembelajaran sistematik terdiri daripada lima komponen termasuklah persoalan, perancangan, jadual, kawalan, penilaian dan refleksi. Kesemua komponen ini adalah asas kepada perlaksanaan PBP. Manakala pembelajaran bersepadu merujuk kepada kebolehan penyelesaian masalah, pencarian, dan eksplorasi yang aktif dalam penciptaan produk-produk seni kreatif. Seterusnya asas kemahiran yang diterapkan dalam PBP adalah meliputi kemahiran mendengar dan berfikir, kebolehan penggunaan teknologi dan sumber maklumat serta kebolehan kendiri. Seterusnya penilaian autentik adalah penilaian projek yang melibatkan konteks dunia sebenar. Kombinasi kelima-lima komponen signifikan ini dijadikan panduan bagi meninjau perlaksanaan PBP dalam bidang seni digital di IPT.

METODOLOGI

Pengkaji memilih reka bentuk kajian kes kerana kajian ini akan dijalankan khususnya dalam bidang pengajian seni digital di lima buah institusi pengajian tinggi di semenanjung Malaysia. Tujuan utama pemilihan kursus seni digital adalah bidang ini merupakan bidang seni yang menggunakan teknologi elektronik di abad ke-21 ini. Manakala, lima lokasi yang dipilih ini membolehkan pengkaji memperoleh data yang lebih bersifat universal. Pengkaji telah memilih untuk menggunakan pendekatan kajian kualitatif untuk memahami secara mendalam bagaimana PBP ini dijalankan oleh pensyarah dan persepsi mereka khususnya pada peringkat diploma dan ijazah sarjana muda. Penyelidikan secara kualitatif digunakan untuk meneroka, memahami dan menafsirkan kepada sesuatu makna yang berbeza. Kaedah temu bual, pemerhatian dan dokumen akan digunakan dalam pengumpulan data. Analisis dilakukan secara induktif dan bertujuan untuk mengenal kod-kod yang hadir dalam mengumpul data. Pengkaji menggunakan proses pengkodan untuk menghasilkan huraian kategori atau tema untuk dianalisis. Tema ialah satu penemuan dalam satu kajian kualitatif yang selalunya digunakan untuk membuat tajuk-tajuk dalam membahagikan penemuan kajian. Seterusnya pengkaji mencadangkan satu interpretasi data berdasarkan apa yang telah diperoleh secara tafsiran makna persendirian serta berdasarkan perbandingan dengan tinjauan literatur atau kajian lepas.
Isu yang difokuskan adalah dari aspek perancangan pengajaran dan pengendalian kuliah. Kajian kes bercirikan deskriptif adalah merujuk kepada hasil kajian kes yang kaya dan mendalam serta terperinci tentang sesuatu fenomena yang dikaji. Dapatan kajian dilakukan dengan jelas dan mendalam dengan menggunakan data temu bual, pemerhatian dan dokumen. Reaksi dan emosi informan pensyarah akan dihuraikan. Manakala kajian kes heuristik adalah boleh membawa kepada fenomena baru, meluaskan pemahaman pembaca atau mengesahkan apa yang diketahui. Pengkaji akan mengesahkan isu yang berlaku dan menghuraikan faktor-faktor yang menyebabkan berlakunya sesuatu isu. Pengkaji juga akan membuat penilaian

mengapa sesuatu isu itu berlaku atau sebaliknya. Berdasarkan ciri-ciri tersebut, kajian kes yang dijalankan ini bercirikan partikularistik, deskriptif dan heuristik kerana ia adalah satu kajian yang mendalam yang melibatkan pemahaman dan penerokaan aplikasi PBP yang merangkumi

Perancangan, proses pembelajaran dan pengajaran dan strategi penilaian yang dijalankan oleh pensyarah. Prinsip pemilihan peserta kajian bersandarkan pandangan Patton (1990) yang menyatakan kajian kes memerlukan pengkaji menetapkan kriteria pemilihan peserta kajian untuk memudahkan fokus kajian dijalankan. Kajian ini menggunakan istilah informan kerana istilah ini merujuk kepada peserta kajian yang memberitahu serta menceritakan pendapat dan pandangan terhadap sesuatu isu yang dipersoalkan. Pemilihan kesemua lima orang pensyarah IPT ini sebagai informan adalah secara persampelan bertujuan atau dikenali sebagai "*purposeful sampling*" (Merriam, 1998 ; Creswell, 1999). Kajian yang dijalankan ini memerlukan informan yang memegang jawatan pensyarah dan kelayakan akademik dalam bidang pengkhususan seni yang berasaskan penggunaan media komputer seperti grafik dan multimedia digital di institusi pengajian tinggi tidak kira di peringkat diploma atau ijazah. Pengkaji juga menitikberatkan pengalaman mengajar yang agak lama dan pensyarah yang mempunyai pengalaman di industri agar informan mampu memberikan maklumat yang lebih mendalam serta relevan dalam menghubungkaitkan pendidikan seni dengan kerjaya seni.

DAPATAN KAJIAN

Hasil dapatan kajian dapat dilihat daripada aspek aplikasi dan persepsi pensyarah terhadap PBP melalui instrumen temu bual, pemerhatian dan dokumen. Aplikasi PBP dapat dilihat menerusi penghasilan artifak atau produk kreatif yang berbentuk seni grafik dan multimedia. Kebanyakan projek yang dijalankan memerlukan jangka masa yang lama dan lebih daripada tiga minggu. Rancangan tugasan yang diberikan jelas dari aspek tema, audien sasaran, format penghasilan, format penghantaran dan kaedah penilaian. Proses yang kedua adalah proses lakaran perkembangan idea yang perlu dihasilkan oleh pelajar-pelajar setelah menerima taklimat projek. Format lakaran perkembangan idea adalah berbeza mengikut kehendak pensyarah juga kreativiti pelajar-pelajar sendiri. Berdasarkan pemerhatian terhadap dokumen hasil lakaran perkembangan idea pelajar-pelajar informan pensyarah, kebanyakan informan pensyarah memberi kebebasan kepada pelajar-pelajar untuk menggunakan sebarang media bagi menghasilkan lakaran perkembangan idea. Proses lakaran perkembangan idea merupakan proses yang penting dan sering ditekankan oleh pensyarah sebelum penghasilan produk akhir.

Seterusnya sesi kritikan dan konsultansi juga dijalankan oleh informan pensyarah. Namun, tidak semua pensyarah menjalankan sesi kritikan secara formal dan dirancang dalam rancangan pengajaran. Terdapat juga pensyarah yang sememangnya mengambil serius terhadap sesi konsultansi bersama pelajar di dalam dan luar waktu kelas. Pensyarah berpendapat pelajar-pelajar seharusnya sentiasa berusaha berbincang, berkongsi pendapat dan pandangan tentang projek yang sedang dijalankan. Situasi ini secara tidak langsung mampu mengeratkan hubungan yang baik diantara pelajar dan pensyarah. Mereka juga memberi peluang kepada pelajar untuk sentiasa membuat temu janji bersama pensyarah bagi membuat perbincangan jika perlu. Namun demikian, konsultansi bersama pelajar-pelajar tidak ditegaskan dalam sesi temu bual. Setelah melalui proses lakaran perkembangan idea, kritikan dan konsultansi, pelajar-pelajar perlu membuat pembentangan produk akhir. Kaedah pembentangan akhir dan penilaian adalah berbeza mengikut subjek. Kebanyakan

pembentangan dilakukan dengan menggunakan komputer dan skrin projektor. Hal ini disebabkan kebanyakan hasil produk dibentangkan dalam format video. Tidak ketinggalan juga hasil karya seni grafik yang dicetak dengan kualiti cetakan yang tinggi. Kriteria penilaian dibina oleh pensyarah sendiri. Salah seorang informan menyatakan penilaian dilakukan secara dalaman dan luaran. Penilai dalaman dan penilai luaran dari industri telah digunakan bagi memastikan kualiti produk seni kreatif pelajar-pelajar mencapai nilai yang tinggi secara realisitik dari industri sendiri. Berdasarkan pemerhatian yang dijalankan di lokasi kajian, pensyarah memandang serius terhadap hasil karya pelajar-pelajar

Yang perlu dipamerkan. Hal ini secara tidak langsung memberi semangat kepada pelajar-pelajar untuk sentiasa berusaha menjalankan tugasan dan menghasilkan produk seni yang lebih berkualiti. Usaha seumpama ini memerlukan dorongan yang kuat dari pensyarah dan pihak institusi itu sendiri. Seterusnya persepi pensyarah terhadap PBP adalah strategi PBP dalam bidang seni digital dapat difahami melalui beberapa konsep iaitu melalui tugasan yang berorientasikan projek dan artifak, asas kemahiran, pembelajaran bersepadu dan bersifat autentik. Kesemua informan yang terlibat dalam sesi temu bual tidak menafikan strategi PBP ini adalah penting merujuk kepada kepentingan kursus pengajian seni digital itu sendiri yang berperanan melahirkan pelajar yang kreatif dan berinovatif. Kursus pengajian ini memerlukan pelajar-pelajar yang berkebolehan dalam mencipta produk-produk kreatif termasuklah animasi, laman sesawang, identiti korporat, media cetak, media elektronik dan sebagainya untuk memenuhi keperluan dan kehendak masyarakat abad ke-21 ini. Penghasilan produk kreatif memerlukan asas kemahiran seperti berfikiran kritikal, kemahiran praktikal dalam penggunaan teknologi semasa serta penggunaan sumber dan maklumat. Selain itu, konsep pembelajaran autentik berperanan dalam memastikan pelajar-pelajar tidak ketinggalan dengan arus kemajuan industri sebenar produk kreatif itu sendiri secara realistik. Kolaborasi dengan industri adalah penting dalam memastikan modal insan yang dihasilkan menepati kriteria industri semasa. Seterusnya pembelajaran bersepadu yang menerapkan konsep berpusatkan pelajar dalam pembelajaran dan pengajaran dapat memberi motivasi yang lebih tinggi kepada pelajar apabila mereka melibatkan diri sepenuhnya dalam projek yang disediakan oleh pensyarah bermula dengan perancangan sehingga penghasilan produk akhir.

Kesimpulan

Pelbagai takrif dan ciri-ciri yang telah dikenal pasti dan dikemukakan oleh beberapa organisasi, institusi dan individu dari kajian terdahulu. Kajian ini merujuk pada dokumen *Project-Based Learning Handbook, Educating the Millenial Learner* yang dikeluarkan oleh Bahagian Teknologi Pendidikan, Kementerian Pelajaran Malaysia (2006). Dokumen ini menyatakan beberapa ciri-ciri PBP yang terdiri daripada pembelajaran dan pengajaran sistematik, pembelajaran bersepadu, asas kemahiran, berorientasikan produk dan tugasan penilaian autentik. Selain itu Institusi Pendidikan Buck (2015) menyatakan elemen PBP adalah terdiri daripada persoalan mencabar, inkuiri, autentik, berpusatkan pelajar, produk awam dan kritikan. Selain itu Bender (2012) menyatakan PBP adalah kaedah pembelajaran yang melibatkan sesuatu persoalan yang memerlukan penyelesaian, penghasilkan artifak, penggunaan teknologi, berpusatkan pelajar dan perkembangan idea. Beliau berpendapat PBP sering berubah mengikut perkembangan teknologi dan perubahan zaman. Hasil dapatan kajian ini memperolehi beberapa persepi pensyarah terhadap PBP yang tidak jauh berbeza dengan takrif yang didapati melalui sorotan litratur. Kesemua pensyarah menyatakan konsep PBP memerlukan tugasan yang berorientasi projek dan artifak, pembelajaran yang bersepadu, asas-asas kemahiran dan pembelajaran secara autentik. Mereke berpendapat PBP merupakan satu

alternatif kaedah pengajaran yang boleh dijadikan panduan oleh seseorang pendidik. Pelbagai cara yang digunakan untuk mengaplikasikan kaedah PBP ini kerana pelbagai tafsiran yang timbul dalam memberi makna kaedah pembelajaran ini. Namun demikian, kesan yang dapat dilihat dalam diri pelajar-pelajar ianya kebanyakannya memberi kesan positif ke atas keyakinan diri dan minat untuk menimba ilmu pengetahuan. Menurut Mioduser dan Betzer (2003) pelajar bermotivasi dan sentiasa terdorong dengan sifat ingin tahu untuk mempelajari sesuatu perkara kerana kaedah PBP merupakan kaedah menjalakan projek yang bersifat terbuka. Projek dan tugasan yang bercirikan PBP haruslah melibatkan aktiviti di luar kelas dan merangkumi

Keterlibatan masyarakat. Selain itu, konsep berpusatkan pelajar yang ditekankan memberi kesan positif pada pelajar-pelajar terutama pelajar di IPT. Pelajar IPT merupakan golongan generasi muda yang lebih selesa dengan pembelajaran seumpama ini. Mereka lebih rasa berbangga dan bersemangat dalam mencurahkan idea sendiri dengan sokongan yang diberikan oleh pensyarah. Cabaran yang diberikan memberi dorongan kepada pelajar-pelajar untuk menyelesaikan permasalahan dengan cara mereka sendiri. Ia secara tidak langsung memberi kesan yang baik pada prestasi kemahiran penyelesaian masalah, kemahiran berfikir dan perkembangan kreativiti pelajar-pelajar. Selain itu, konsep PBP mampu mewujudkan suasana pembelajaran yang lebih kondusif dan aktif. Ini kerana pelajar-pelajar perlu menjalani sesi perbincangan, konsultansi, kritikan atau refleksi di dalam bilik kuliah atau studio. Pelajar-pelajar menjadi lebih aktif melontarkan sebarang pandangan, membuat perbincangan, memberi perhatian dan fokus pada isu yang dibincangkan selain mencari idea dalam membuat perkaitan antara permasalahan dengan situasi sebenar. Dengan cara ini juga pelajar akan lebih peka akan apa yang dipelajari dan lebih cepat membuat keputusan dalam sesuatu perkara. Ini disebabkan projek yang diberi seratus peratus atas usaha sendiri telah menjadikan mereka lebih bertanggungjawab dan pandai mengatur masa dalam membuat projek ini.

Sifat PBP yang autentik dan mementingkan permasalahan dunia sebenar yang berlaku dalam masyarakat termasuklah melibatkan tugasan yang seiring dengan kehendak industri telah memberikan satu nilai yang tinggi. Ini kerana setiap pelajar yang melanjutkan pelajaran di peringkat pengajian tinggi menaruh harapan untuk mendapatkan kerjaya yang mampu memberi pendapatan. Persediaan dari aspek mental, fizikal, rohani dan jasmani harus dibina dalam diri dengan sebaik-baiknya bagi menjamin masa depan yang lebih cerah. Pendedahan yang diberikan oleh sesebuah institusi dan pensyarah kepada pelajar-pelajar hendaklah digapai oleh pelajar-pelajar dengan usaha yang gigih. Pembelajaran aktif adalah penting bagi mewujudkan suasana pembelajaran yang tidak pasif dan tidak membosankan. Peranan pensyarah dalam mencipta teknik pembelajaran dan pengajaran yang lebih moden dan interaktif sememangnya dapat membantu pelajar-pelajar untuk lebih fokus dengan pembelajaran di dalam kuliah. Pendekatan inkuiri membolehkan pelajar menggunakan keperluan ingin tahu mereka untuk meneroka sesuatu bidang yang diminati. Elemen inkuiri ini dapat dilihat dalam dokumen *Gold Standard PBL: Essential Project Design Elements* yang dikeluarkan oleh Institusi Pendidikan Buck (2015). Secara keseluruhannya, kesan positif dapat dilihat apabila pelajar-pelajar lebih aktif dan fokus pada suasana pembelajaran yang tidak berteraskan guru. Pelajar-pelajar perlu diberikan lebih banyak peluang dan ruang untuk bersuara memberi idea dan pendapat. Motivasi diri dan minat yang lebih mendalam dapat dipupuk dalam diri pelajar-pelajar melalui kaedah pengajaran dan pembelajaran yang lebih sistematik.

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INTERPRETASI VISUAL RHETORIC-SEMIOTIC DALAM IKLAN KHIDMAT AWAM ALAM SEKITAR DI MALAYSIA

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Abstrak: *Kajian ini bertujuan meneroka dan mengkaji visual rhetoric-semiotik dan juga interpretasi simbol yang digunakan di dalam iklan khidmat awam (PSA- Public Service Announcement) alam sekitar di Malaysia. Pendekatan kualitatif dengan reka bentuk kajian kes dan analisis pengkaryaan telah digunakan dalam kajian ini melibatkan tiga iklan khidmat awam alam sekitar. Selain itu temubual telah dijalankan ke atas audien yang mana pemilihan partisipan secara persampelan bertujuan dan melibatkan pelajar IPT, ahli akademik, pereka grafik juga audien awam. Ini bertujuan untuk melihat interpretasi mereka yang terlibat sebagai data yang mengukuhkan hasil kajian ini. Data dianalisis dengan menggunakan analisis deskriptif yang terbahagi kepada tiga peringkat iaitu deskriptif, interpretasi dan penilaian. Hasil dapatan kajian secara keseluruhan dapat dirumuskan bahawa visual rhetoric yang digunakan dalam iklan khidmat awam alam sekitar ini merupakan aspek yang penting dalam menyampaikan mesej, menggunakan imej-imej sebagai simbol tertentu dan mempunyai makna disebaliknya. Kesimpulan daripada kajian menunjukkan penggunaan visual rhetoric adalah menarik untuk digunakan sebagai simbol dan menterjemahkan makna dalam menyampaikan mesej. Selain itu bidang pengiklanan banyak menggunakan visual rhetoric terutamanya dalam iklan khidmat awam sebagai daya penarik untuk memastikan penyampaian mesej berkesan. Implikasi kajian menunjukkan bahawa visual rhetoric dalam iklan khidmat awam alam sekitar ini banyak membantu dalam meneroka ilmu pengetahuan mengenai visual rhetoric, semiotik serta ilmu mengenai alam sekitar termasuklah dalam bidang pendidikan komunikasi visual, di sekolah dan juga dalam industri grafik dan pengiklanan.*

Kata Kunci: *visual rhetoric, semiotik, simbol, PSA, alam sekitar*

Pengenalan

Visual rhetoric adalah merujuk kepada perkara yang kita lihat dan bagaimana ianya memujuk (*persuaded*) kita atau audien melalui perkara yang dipaparkan. *Rhetoric* secara umumnya, ia sering merujuk kepada bahasa, sama ada ianya bertulis atau lisan, yang digunakan secara strategik dengan kaedah tertentu untuk memujuk orang ramai mempercayai atau bertindak mengikut cara tertentu. Hal ini sering terjadi atau digunakan dalam dunia politik misalnya. Apabila memperkatakan tentang *visual rhetoric* pula, kebanyakan kita mungkin cenderung berfikir bahawa ianya merujuk kepada gaya imej yang dimanipulasi untuk mendorong orang

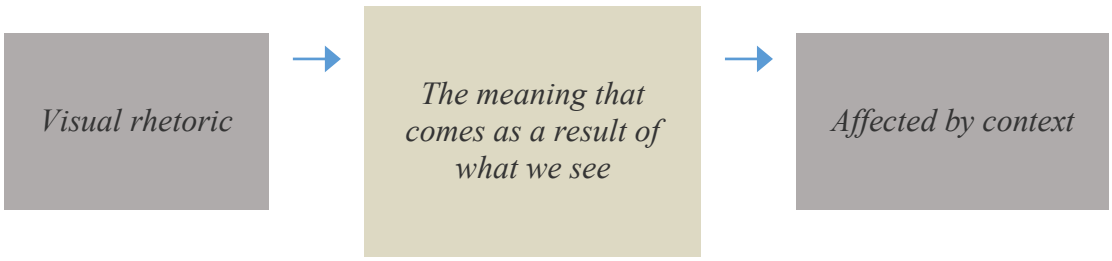
ramai supaya menukar cara melihat sesuatu. Walau bagaimana pun, *visual rhetoric* ini sebenarnya lebih daripada manipulasi imej kerana ianya merujuk kepada, bagaimana kita menterjemah, mentafsir dan membuat makna daripada apa yang kita lihat.

Semiotik pula jika dilihat secara etimologi berasal daripada perkataan Yunani 'semeion' yang membawa maksud tanda. Secara terminologi pula semiotik dapat didefinisikan sebagai ilmu mengenai tanda-tanda. Ilmu semiotik ini telah menyatakan bahawa fenomena sosial atau masyarakat serta kebudayaan itu terbentuk daripada tanda-tanda. Selain itu, semiotik juga termasuk perkara mengenai sistem-sistem, aturan-aturan dan konvensi (formula–formula tertentu) yang memungkinkan tanda-tanda tersebut mempunyai makna tertentu.

Kenneth 2004 telah menyatakan bahawa, menginterpretasi atau menterjemahkan mesej di dalam sesebuah visual tidak semestinya terlalu bergantung kepada objektif dan terikat dengan sesuatu yang fakta. Audien atau pembaca mungkin boleh menggunakan proses *trail-and-error interpretations* atau cuba mengaitkan dengan apa sahaja yang dekat maknanya sama seperti pereka menghasilkan rekaan dalam proses perkembangan idea. Ini adalah proses perkaitan di antara pereka dan imej yang disebut sebagai *ecological relationship*. Audien dan pembaca boleh mengkaji analogi atau perkara yang paling ketara dan kemudiannya sebuah makna atau maksud di sebalik visual yang dipaparkan akan kelihatan seterusnya mesej dapat disampaikan.

Visual rhetoric ini adalah sebahagian daripada proses komunikasi di mana kita mentafsir dan membuat makna daripada dunia di sekeliling kita. Dalam erti kata lain, *visual rhetoric* adalah ruang di mana komunikasi berlaku, ruang yang dipengaruhi oleh pembolehubah secara kompleks (Newbold, 2013). Aristotle menyatakan bahawa *rhetoric* adalah "memerhati, di dalam apa-apa keadaan, ianya adalah cara pujukan." Jika kita mahu memujuk seseorang untuk berfikir atau bertindak dengan cara yang tertentu, kita akan memilih kata-kata yang sesuai, organisasi tertentu, gaya, bingkai (framing) dan sebagainya untuk meyakinkan mereka. Ianya dilakukan dengan *visual rhetoric*, kita yang memilih cara visual untuk memujuk.

Visual rhetoric juga (atau cara orang mentafsir pesanan oleh apa yang mereka lihat) dipengaruhi oleh pelbagai perkara. Rajah 1.1 di bawah menjelaskan bahawa terdapat tapisan konteks yang mengubah makna. Dalam erti kata lain, konteks memainkan peranan yang besar untuk memberi kefahaman mengenai sesuatu perkara kepada audien atau pembaca.



Rajah 1.1: **Kerangka Perkaitan *Visual Rhetoric*, Makna Dan Kesan Dalam Konteks Tertentu.**

Penyataan Masalah

Pengiklanan kempen khidmat awam (*PSA-Public Service Announcement*) merupakan sebuah kempen yang mengajak masyarakat lebih prihatin dan mengambil bahagian dalam meneliti, menyedari dan memandang serius sesuatu isu yang menjadi kepentingan kepada masyarakat dan negara. Isu alam sekitar misalnya telah lama dibangkitkan tetapi masyarakat masih kurang kesedaran dan membawa kepada isu-isu alam sekitar yang lain sehingga kini. Banyak

iklan-iklan kempen yang mengajak atau memberi kesedaran kepada audien, pengguna atau masyarakat awam tentang akibat tidak menjaga alam sekitar tetapi tidak memberi kesan. Penggunaan medium yang sesuai dan penggunaan simbol, ikon dan tanda yang baik serta dapat difahami masyarakat sangat penting. Pelbagai media digunakan sebagai medium komunikasi dalam penyampaian maklumat dan mesej tertentu. Walau bagaimana pun terdapat kekurangan dalam setiap rekaan yang dihasilkan sehinggakan masyarakat tidak dapat atau mahu memahami mesej seterusnya masyarakat tidak peduli dengan apa yang ingin disampaikan dalam iklan khidmat awam tersebut.

Selain itu, umum tidak menyedari tentang limitasi atau keterbatasan dana dalam setiap kempen pengiklanan (*PSA*) ini. Sedangkan kempen-kempen ini sendiri adalah bertujuan mengutip dana baru untuk kempen yang seterusnya. Limitasi dana ini menjadikan kekerapan kempen iklan ini tidak dapat dilakukan seperti mana iklan kempen produk atau servis yang biasa. Perkara ini menjadi salah satu sebab mengapa iklan kempen ini tidak selalu kelihatan di media iklan dan menjadi sebab juga untuk masyarakat tidak menghiraukan dan mengabaikan alam sekitar.

Persoalan Kajian

1. Apakah bentuk *visual rhetoric*-semiotik yang terkandung di dalam iklan kempen khidmat awam alam sekitar?
2.Bagaimanakah interpretasi *visual rhetoric*-semiotik sebagai simbol di dalam iklan kempen khidmat awam alam sekitar?

Kepentingan Kajian

Peranan iklan dalam menyampaikan mesej-mesej tertentu adalah penting malah pemilihan medium juga memberi kesan kepada masyarakat. Walau bagaimana pun imej-imej dan teks yang digunakan di dalam iklan-iklan kebanyakkannya masih belum boleh ‘dibaca’ oleh audien sasaran atau pembaca.

Kajian ini penting kerana ia mengupas dan menginterpretasikan imej-imej yang menjadi simbol serta teks dalam iklan kempen ini. Seteruskan membantu para pengiklan dan pereka iklan dan juga pereka grafik baru sebagai panduan dalam menggunakan *visual rhetoric* untuk menghasilkan iklan yang berkesan. Selain itu kajian ini melihat bagaimana simbol, tanda atau ikon membawa makna dalam penyampaian mesej-mesej terutama di dalam iklan kempen ini.

Peranan yang lain ialah memanggil khalayak untuk berinteraksi atau berkomunikasi dengannya sambil memahami, memikir serta menilai visual yang menjadi simbol-simbol dan mesej yang disampaikan melalui medium-medium tertentu dalam kempen khidmat awam alam sekitar ini. Jadi masyarakat dididik bagaimana menginterpretasikan sesebuah hasil karya seni seperti ilustrasi iklan di mana kandungan iklan berisi makna dan pesanan bagi masyarakat melalui *visual rhetoric* agar tidak mudah untuk salah dalam memahami (*miscommunication*) sesuatu mesej yang ingin di sampaikan.

Tinjauan Literatur

Komunikasi Visual Dan *Rhetoric*-(Semiotik)

Komunikasi visual adalah sebuah istilah dalam proses menyampaikan maklumat dan ia juga berkaitan dengan makna, seperti yang dinyatakan oleh Suh, 1999 dalam McGinn 2004.

Moriaty, 2005, pula menyatakan bahawa komunikasi visual ini adalah sebahagian dari gabungan bidang pemikiran. Selain itu Bonsiepe, 1994 dan Frascara, 1997, menyebut komunikasi visual adalah sebuah subjek akademik yang dikaji secara meluas meliputi pelbagai cabang dan bidang termasuklah komunikasi dan *rhetoric*, psikologi, sains sosial dan juga seni reka. Ini menunjukkan komunikasi visual adalah bahagian yang penting dalam seni reka untuk diaplikasikan dalam kehidupan dan dekat dengan masyarakat seterusnya ia menjadi aktiviti sosial. Ianya gabungan pemikiran yang kreatif dan mempunyai makna serta berkaitan dengan aktiviti masyarakat. Bagi pengkritik seni reka Kinross, 1986, berkata, *"designing, being a social activity, will remain out of reach of formal theory".* Begitu juga dengan pereka Dilnot, 1989, yang menjelaskan perkara yang paling penting mengenai seni reka ialah ianya dapat menghasilkan, menerima dan digunakan secara serius dalam konteks sosial. Daripada pernyataan di atas, ianya terus membawa kepada selain daripada aspek fungsi, komunikasi visual ini mempunyai fungsi tertentu malah ianya juga sangat perlu diberi perhatian dari sudut komuniti kajian seni reka.

Bagi Burdek 2005 dalam Ma 2008, "*The [design] discipline's constant crisis of meaning is in fact an expression of its increased need for theory and reflection".* Manakala pengkaji, Lindlof (1995) juga mengatakan, asas yang menarik dalam komunikasi ialah pesoalan mengenai *rhetoric*, pembinaan makna (semiotik) dalam konteks sosial, *"The fundamental interest of communication is rhetorical inquiries, social construction of meaning and semiotics".* Semua penyataan ini membawa kepada pentingnya komunikasi visual dan *rhetoric* - semiotik yang memberi makna dan diterjemahkan melalui rekaan tertentu, malah sangat penting dalam konteks sosial.

Perbincangan dalam perkara berkaitan *rhetoric* dan juga semiotik, ianya merangkumi semua komunikasi lisan, yang mempunyai kelemahan dalam penggunaan tatabahasa secara lisan dan juga bukan lisan. Ini adalah kerana imej adalah medium komunikasi asas bagi otak manakala *rhetoric* dan semiotik adalah perkara yang paling dekat dalam memahami komunikasi visual apabila melihat hubungan dalam imej dan lisan juga teks.

Apabila kita membaca, dengar dan lihat ia akan memberi gambaran idea yang berlainan tahap, dan dikenali sebagai format imej neuron. Tahap yang berlainan ini akan memberi hasil dalam bentuk makna sesuatu yang kita fahami hasil daripada impak perkara yang kita lihat. Damaiso menjelaskan bahawa, imej adalah corak mental yang dihasilkan melalui apa yang kita rasa dan membolehkan kita untuk memilih antara corak sebelum ini dan mengoptimumkan tindakan yang dipilih (Damaiso, 1999,p.24) dalam Barry, 2002.

Komunikasi visual dan *rhetoric* ini memainkan peranan penting dalam pendidikan emosi dan manipulasi dalam politik misalnya, ekonomi juga melibatkan beberapa kepentingan yang lain. Menurut Damaiso lagi hampir setiap imej, sebenarnya boleh "dirasakan atau dipanggil semula, disertai oleh beberapa reaksi daripada emosi" dan setiap penyebab sesuatu memerlukan emosi. Media yang berbentuk visual dengan kekerapan dan berulang-ulang tindakan atau tayangan amat sesuai untuk penerapan emosi, seperti kesan terhadap individu melalui lukisan tertentu, atau ukiran dalam seni halus. Pada hari ini, teknik visual yang sama boleh dilihat dalam rancangan hiburan seperti *MTV (Music Television)* sehinggalah permainan video interaktif yang begitu realiti secara maya. Ini adalah kerana mesej visual kebanyakannya diproses oleh rangsangan bawah sedar otak yang tidak

memahami seni dan ia adalah tidak realiti apabila mereka berhenti menontonnya. Kuasa visual boleh memberi kesan yang sangat besar, sama ada yang diingini atau tidak, dan berkait rapat dengan pembangunan emosi. Melalui emosi, sikap, idea-idea, dan tindakan akan ditolak dalam arah yang tertentu, positif atau negatif.

Dalam ilmu dan seni komunikasi visual, pemerhatian ini mempunyai maksud yang besar. Ini kerana imej akan tergambar pada otak sebelah kanan, ianya membaca dengan cara yang berbeza daripada kata-kata, manakala otak di sebelah kiri untuk pemprosesan. Dalam pengiklanan, sebagai contoh, Carter dan Frith menjelaskan, banyak pengiklanan direka untuk mengeksploitasi jurang atau perbezaan antara otak kanan yang mudah terpengaruh dan otak kiri yang lebih kritikal. Maka, iklan-iklan yang dihasilkan atau direka akan menggunakan imej-imej visual dan bukan kata-kata untuk menyampaikan mesej. Secara tidak langsung akan meninggalkan kesan pada hemisfera otak kanan dan tidak semestinya didaftarkan oleh otak kiri (Carter, 1999).Zeki, 1998 dalam Barry 2002, pakar neorologi telah membuat pemerhatian bahawa artis atau pereka, belajar memahami otak dengan teknik yang unik iaitu belajar tanpa disedari oleh otak dan organisasi dan dalam dunia pengiklanan. *The Foote, Cone & Belding* (FBC) sebuah agensi pengiklanan, membangunkan model perancangan pengiklanan mengenai keputusan pembelian *(advertising planning model of purchase decision making)* 20 tahun yang lalu, mengiktiraf perasaan dan fikiran adalah bahagian yang jelas berasingan dalam kontinum yang sama dan ini menjadi asas pembangunan strategi kreatif yang berkesan dalam kempen pengiklanan.

Leo Burnett, menjelaskan bahawa imej yang paling berkesan akan bergema jauh di dalam jiwa: "Idea-idea pengiklanan yang paling kuat adalah bukan lisan," dan dalam bentuk penyata dengan kualiti visual (Broadbent, 1984,p.3) dalam Barry, 2002.

Rhetoric

Rhetoric dalam bahasa Inggeris bermaksud kepandaian dalam berbicara atau berpidato, ini menurut Echols, 2009. Juga diperkatakan perkara yang sama bahawa, ia merupakan seni menggunakan kata-kata secara lisan mahu pun tulisan, atau berbicara menggunakan pertunjukkan dan rekaan oleh Hornby & Parnwell dalam Syamsuddin 2014.

Visual rhetoric pula secara ringkasnya dapat memberi maksud bagaimana atau mengapa gambar visual tersebut mempunyai makna. Ia tidak hanya mengenai rekaan atau gambar, tetapi juga mengenai budaya dan makna yang tercermin atau tergambar di dalam karya visual tersebut. *Visual rhetoric* adalah penerapan perspektif ilmu yang terfokus kepada proses menterjemahkan simbol gambar dalam menyampaikan mesej atau berkomunikasi. Tahun 1970 gambar visual pernah dimasukkan ke dalam kajian *rhetoric* melalui persidangan Nasional *Rhetoric* yang dianjurkan oleh *Speech Communication Association* (Sloan & Foss, 2004).

Selain itu, *Visual rhetoric* adalah gambar yang dihasilkan oleh pereka yang menggunakan simbol-simbol visual untuk tujuan berkomunikasi. Antaranya adalah hasil produk dari kreativiti seperti sebuah lukisan, foto, iklan, atau bangunan. Gambar yang digunakan sebagai *visual rhetoric* memiliki fungsi sebagai *rhetoric* atau persuasif (pemujukan), nilai estetik dan juga manfaat di sebalik penggunaannya. Sebagai contoh karya seni ataupun sesebuah karya iklan, tidak hanya menjadi alat komunikasi tetapi juga ianya kelihatan cantik dan menarik.

Tidak semua objek visual merupakan *visual rhetoric*. Terdapat tiga ciri utama dari *visual rhetoric*, iaitu pertama gambar mesti kelihatan simbolik, kedua ianya melibatkan

intervensi manusia, dan ketiga ia ditunjukkan kepada audien untuk tujuan berkomunikasi dengan audien tersebut (Foss, 2005).

Semiotik

Kajian mengenai makna telah berkembang daripada semiotik, kepada pendekatan falsafah yang bertujuan untuk mentafsir pesanan dari segi tanda-tanda dan corak simbolisme mereka. Kajian semiotik, atau *semiology* di Perancis, berasal daripada konteks sastera atau linguistik dan berkembang dalam beberapa konsep sejak awal era Pierce di Amerika Syarikat dan Saussure di Perancis. Semiotik digunakan dalam teori dan juga sebagai strategi dalam penyelidikan. Teori yang mendorong dalam kajian komunikasi malah sebagai struktur analisis yang digunakan dalam kajian tanda, atau sistem tanda, yang membaiki atau menambah baik dalam sistem komunikasi. Selain itu, ia juga merupakan *socio-semiotics* (beberapa dimensi) yang mengungkapkan persoalan-persoalan pada tahap strategi dan juga konsep asas semiotik secara tradisional sehingga ianya boleh diaplikasikan dalam kesemua cabang atau tahap teori (Ma, 2008).

Ada beberapa idea dan juga pernyataan dalam persoalan berkaitan semiotik yang boleh menjelaskan lagi istilah semiotik kepada bentuk yang lebih ringkas. Jika dilihat semiotik secara asas atau dalam asas *rhetoric* ia adalah idea mengenai tanda, teks dan kod. Tanda yang melambangkan atau memberi makna kepada seseorang atau dalam konteks tertentu. Selalunya ia akan mempunyai tarikan tertentu dan kepada sasaran tertentu.

Teks pula, dirujuk sebagai gabungan bersama tanda yang mempunyai tujuan tertentu dalam sesuatu komunikasi. Disebabkan itu ia selalu digunakan bersama dalam bidang periklanan atau kempen periklanan yang menggabungkan teks dan imej menjadi visual seni di mana ianya berkomunikasi dengan masyarakat atau kumpulan sasaran.

Kod pula adalah satu ukuran atau garis panduan dalam penggunaan tanda, yang menjadi jalan untuk sesuatu makna diterjemahkan. Misalnya dalam rekaan tanda, pereka akan menghasilkan rekaan berdasarkan kod tertentu yang sedia ada untuk mengekalkan nilai tanda tersebut malah pereka juga boleh menghasilkan rekaan yang baru.

Jika dilihat semula perkembangan awal teori atau istilah semiotik ini, daripada Saussure (1857-1913) dan Peirce (1839-1914), telah mencipta satu model tanda yang membawa kepada pembentukan konsep yang dipanggil *signifier* (penanda) dan *signified (*petanda-menandakan*)*. Konsep ini akan dijelaskan lagi melalui Barthes, 1977. Bagi Saussure di awalnya, tanda ini adalah asas dalam tanda linguistik. Ianya hanya menumpukan pada perkataan dan tidak menumpukan pada perkaitan atau hubungan di antara *signified* dan realiti. Maka ia menjadi terbatas dan mendapat kritikan jika dilihat kepada penggunaan dalam kehidupan harian (Crow, 2003). Jadi ia boleh dikatakan sebagai model asas dalam semiotik awal.

Setelah itu, model ini berkembang, Peirce, Barthes, Eco, Krampen (1983) dan beberapa orang yang lain, telah menghasilkan dan menjadikan semiotik ini sebagai sistem tanda dalam beberapa media sehinggakan Peirce dalam Brummet, 1995, mengatakan ‘semuanya adalah tanda atau melambangkan sesuatu’. Eco, 1976, telah membuat penyelidikan secara kontemporari menemui semiotik ini boleh ditemui dalam beberapa fenomenalogi, termasuklah *zoosemiotics, medical semiotics, music codes, visual communication* (komunikasi visual) di mana kempen menggunakan semiotik dalam rekaan sistem tanda pada jalan.

Pada awalnya Barthes, mengaitkan teori semiotiknya dengan teori *Myth* (berkaitan sesebuah pernyataan). Barthes mengatakan *myth* adalah sistem penting dalam menyampaikan mesej, jadi ia boleh disebut sebagai fenomenalogi semiotik. Makna disebaliknya boleh

dikembangkan lagi. Contohnya, fenomenalogi budaya boleh disebut sebagai myth (sejarah) bermula daripada alat permainan, fesyen, muzik, makanan dan juga imej visual. Dalam analisis semiotik sistem tandanya, beliau membentuk imej visual dalam pengiklanan (imej *rhetoric*; *rhetoric image* 1977) untuk menunjukkan bahawa sesebuah rekaan dibentuk dengan baik akan menjadi penyataan yang boleh dijelaskan dan mempunyai makna disebalik. Barthes (1977) juga, mengembangkan lagi dua komponen tanda ini: (i) *signifier* atau penanda yang (bunyi, imej atau perkataan) dan (ii) *signified* atau petanda (menandakan), yang merupakan konsep penanda menterjemahkan atau menunjukkan makna. Yan dan Ming 2015, juga telah membuat penjelasan beberapa konsep asas dalam semiotik oleh Barthes yang memainkan peranan dalam memahami bahawa *myth* dikukuhkan dengan dua mekanisma iaitu secara natural dan general. Penggunaan tanda dalam televisyen misalnya dan fungsi semiotik merumuskan, sesebuah makna boleh diterjemahkan menggunakan sesebuah tanda dalam media untuk mendapatkan makna baru daripada audien yang menonton.

Setiap tanda diterjemahkan oleh sesuatu objek, pertama sekali ia 'baca' dengan melihat karektor objek tersebut; disebut tanda sebagai ikon. Kemudian, yang keduanya dilihat secara spesifik, individu atau objek tunggal disebut tanda sebagai index dan ketiga, dengan anggaran yang sebaiknya atau paling tepat bagi objek itu diterjemahkan sebagai indikasi objek secara natural sifatnya dan disebut tanda sebagai simbol (Zeman 1977 dalam Berger 2013).

Kesedaran, Arahan dan Pemujukan (*Awareness, Instruction, and Persuasion)*

Iklan kempen khidmat awam atau PSA (*public service announcement*) seharusnya mengandungi tiga jenis pesanan untuk mempengaruhi atau memotivasikan perubahan dalam tingkah laku. Ia adalah kesedaran, arahan dan pemujukan. Selain itu, untuk mencetuskan kesedaran, setiap pesanan atau mesej dalam kempen mestilah memberi informasi kepada kumpulan sasaran. Dalam memberi arahan pula setiap mesej mesti memberitahu kumpulan sasaran apa yang perlu dilakukan dan bagaimana ianya dilakukan. Kemudian dalam pemujukan pula, setiap mesej seharusnya memujuk kumpulan sasaran mengapa mereka harus menerima mesej tersebut.

Menurut Atkin 2013, mesej atau pesanan dalam kempen khidmat awam seharusnya jelas perkara yang ingin disampaikan, memberitahu kumpulan sasaran dan bagaimana menyatakan setiap tindakan yang perlu dilakukan. Maka setiap mesej yang cuba disampaikan akan tepat menepati matlamat penyampaian mesej atau pesanan.

Rekaan sebuah kempen bermula dengan konsep mencari peluang dan halangan untuk mengenalpasti tingkah laku daripada orang-orang yang berbeza (Atkin & Salmon, 2010). Rekaan kempen yang spesifik kepada segmen daripada populasi yang berubah-berubah, dan akhir sekali tertumpu kepada tingkah laku segmen dalam setiap kempen akan mempengaruhi apa yang diiklankan. kemudian, dari situ akan mengenalpasti apakah yang paling hampir atau yang terbaik untuk menghasilkan sebuah model dalam mempengaruhi tingkah laku, kepercayaan, pengaruh sosial dan persekitaran.

Kandungan mesej atau pesanan boleh dikatakan terbahagi kepada dua perkara iaitu berinfomasi *(informational)* dan memujuk (*persuasive*). Dalam kebanyakan iklan kempen, mesej yang bersifat infomasi adalah untuk menghasilkan sebuah kesedaran *(awareness)* ataupun memberi panduan untuk masyarakat atau pengguna memainkan peranan tertentu. Pesanan berupa kesedaran ini akan mengandungi pesanan yang ringkas untuk memberitahu masyarakat apa yang perlu dilakukan, dengan lebih terpeinci termasuk masa dan tempat. Walau bagaimana pun perkara utama dalam setiap iklan kempen adalah daya pemujukan

(*persuasive appeal*). Bermakna setiap iklan kempen harus menggabungkan pesanan dan pemujukan. Ini adalah bertujuan untuk menggalakkan atau mengajak dan mengelakkan penolakan daripada masyarakat atau pengguna.

Metadologi

Reka bentuk kajian ini adalah kajian analisis pengkaryaan di mana ia berfokus kepada *visual rhetoric* dalam iklan kempen khidmat awam alam sekitar sebagai medium komunikasi. Karya-karya iklan kempen khidmat awam ini diperolehi daripada organisasi yang terlibat dalam iklan kempen alam sekitar. Organisasi yang terlibat adalah *World Wide Fund (WWF)* Malaysia, *Global Environmental Centre* Malaysia, *Regional Environmental Awareness* Malaysia, *dan Malaysian Nature Society.* Setiap satu daripada karya-karya ini ianya telah diterbitkan kepada umum dalam bentuk iklan cetak dan poster dan boleh didapati secara *online*.

Bagi setiap kaedah kajian yang dipilih ianya haruslah bersesuaian dengan persoalan kajian menurut Bogdan dan Biklen, 2006.

Instrumen yang digunakan dalam kajian ini adalah temu bual bersama partisipan sebagai informan iaitu pakar dalam bidang bahasa, psikologi dan komunikasi visual serta tiga kumpulan sasaran sebagai audien. Selain itu pemerhatian dan analisis dokumen yang melibatkan trigulasi dan rakaman visual telah digunakan.

Temu bual dilakukan dengan berperingkat iaitu peringkat pertama bertujuan untuk mendapatkan maklumat mengenai pemahaman partisipan mengenai iklan kempen khidmat awam dan perkembangan dalam penjagaan alam sekitar. Seterusnya disusuli dengan temu bual mengenai *visual rhetoric* dan juga semiotik yang digunakan dalam setiap iklan kempen khidmat awam. Setiap sessi temubual berlangsung selama satu jam secara individu dan berkumpulan.

Pengumpulan data mengenai perkara umum dalam iklan khidmat awam dan pandangan partisipan mengenai bentuk-bentuk *visual rhetoric* diambil dalam temu bual peringkat awal. Kemudian keseluruhan maklumat yang di perolehi daripada kajian ini telah dihuraikan secara deskriptif.

Maklumat yang diperoleh melalui kaedah temu bual direkod, ditranskripsikan dan diserah kepada informan di dalam kajian ini yang bertindak sebagai '*second rater'* bagi tujuan pengesahan. Kaedah *triangulation* iaitu kaedah penyemakan semula dua atau ketiga kali dengan cara *"cross examination"* digunakan dalam temu bual ini untuk mendapat kebolehpercayaan terhadap data dan maklumat yang telah diberikan (Bogdan & Biklen, 2006). Kajian ini menggunakan adaptasi daripada Model Barrett, 2006, yang terbahagi kepada tiga peringkat iaitu deskriptif, interpretasi dan penilaian.

Dapatan kajian

Bentuk *Visual Rhetoric*

Dapatan *visual rhetoric* dalam kajian ini, menunjukkan bahawa bentuk *visual rhetoric* yang digunakan dalam setiap iklan kempen ini ialah imej-imej yang mudah dikenali dan menggunakan imej realistik daripada hasil fotografi dan juga imej lukisan digital.

Elemen-elemen asas dan utama seperti imej, teks, warna dan logo pengiklan ada dimasukkan dengan reka letak yang baik. Elemen dan prinsip rekaan juga diaplikasikan bersesuaian dengan tema dan mesej yang ingin disampaikan. Imej-imej yang digunakan dimanipulasi dengan rekaan yang menunjukkan *visual rhetoric* (mempunyai simbolik atau

melambangkan kepada sesuatu). Imej-imej tersebut adalah seperti imej penyu yang dibentukkan daripada bongkah ais dan mencair, imej penyu yang direka seolah dipegang oleh tangan manusia, imej haiwan yang dibentukkan daripada konsep tandatangan dan juga imej sebuah Bandar di dalam kolam renang. Selain itu imej pokok-pokok kecil yang direka membentuk gelombang ombak.

Semua imej-imej ini menunjukkan ciri-ciri *visual rhetoric* yang diperlukan dan gabungannya digunakan bersama dengan teks dan juga logo melengkapkan setiap rekaan iklan kempen alam sekitar ini.

Interpretasi *Visual Rhetoric*

Dapatan dalam interpretasi makna di sebalik simbol-simbol (*visual rhetoric*) yang digunakan dalam iklan kempen ini adalah setiap imej direka atau dimasukkan dalam rekaan adalah menepati dan melambangkan makna tertentu.

Setiap imej menjadi simbol dan melambangkan makna serta mesej yang disampaikan. Dalam terjemahan atau interpretasi ini, konsep dalam *visual rhetoric* sangat membantu untuk penyampaian makna yang lebih tepat. Imej seperti penyu yang mencair melambangkan penyu yang semakin pupus. Rekaan imej penyu pada pemegang beg plastik pula simbol kepada penyu yang diancam kematian akibat aktiviti manusia seperti pembuangan plastik yang banyak di pantai dan laut. Rekaan imej haiwan yang dibentukkan daripada konsep tandatangan melambangkan haiwan yang memerlukan perlindungan dengan mendapatkan tandatangan sokongan daripada pengguna berkaitan penebangan hutan. Manakala imej bandar yang ditenggelami air (kolam renang) menggambarkan akibat pemanasan global dan penebangan hutan. Imej gelombang ombak yang dibentukkan daripada imej pokok-pokok yang kecil melambangkan penebangan pokok yang berleluasa mengakibatkan tiada kawasan tadahan hujan maka berlaku tsunami dan kemusnahan alam. Kesemua iklan kempen ini membawa makna dan mesej mengenai alam sekitar termasuk hutan perlu dijaga dan begitu juga hidupan di dalamnya yang perlu dilindungi.

Kesimpulan

Berdasarkan rumusan dapatan bentuk *visual rhetoric* yang digunakan sebagai simbol dalam kajian ini, bentuk *visual rhetoric* di dalam setiap iklan kempen adalah terdiri daripada elemen-elemen formalistik yang selalu ada di dalam rekaan iklan. Hasil daripada pemerhatian, deskriptif dan analisis yang dijalankan ke atas lapan iklan kempen khidmat awam alam sekitar ini menjelaskan kepada satu kesimpulan bahawa secara asasnya bentuk *visual rhetoric* ini terdiri daripada imej-imej haiwan, imej pokok-pokok pelbagai saiz, dan juga bangunan dijadikan sebagai bentuk *visual rhetoric*. Imej lain yang melengkapkan lagi rekaan iklan kempen ini adalah logo pengiklan dan juga teks yang membantu sebagai tajuk, slogan malah menjadi panduan dalam menerangkan setiap kandungan mesej.

Terdapat tiga karektor utama dalam menentukan visual rhetoric iaitu *symbolic action, human intervention* dan *audien presence*. Ketiga karektor ini terutama *symbolic action* menentukan dalam memastikan *visual rhetoric* itu melambangkan sesuatu atau menjadi simbol kepada sesuatu.

Manakala konsep *Ethos, Patho,s Logos, Kairos dan Topos* misalnya menjelaskan penggunaan bahasa visual dan mengklasifikasikan kreadibiliti, daya penarik , logik, masa dan juga metafora dalam sesebuah rekaan iklan kempen khidmat awam (*PSA)* ini.

Selain itu dalam penghasilan *visual rhetoric* ini juga, peranan elemen dan prinsip rekaan adalah penting. Ini menjadikan setiap rekaan iklan kempen teratur, seimbang, ringkas tetapi berkesan serta bertepatan dengan tema atau konsep untuk penyampaian mesej.

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PEMERDAGANGAN MANUSIA DI MALAYSIA ISU DAN USAHA MEMBANTERAS

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Abstract: *Ancaman bukan ketenteraan dilihat semakin mendominasi agenda politik dunia antaranya termasuklah isu pemerdagangan manusia, pengedaran dadah, penyeludupan migran asing dan sebagainya. Isu pemerdagangan manusia merupakan isu global yang melanda kebanyakan negara di dunia. Malaysia juga merupakan salah sebuah negara yang tidak terlepas daripada menghadapi isu ini. Sehubungan dengan itu, kerajaan Malaysia mengambil pelbagai inisiatif untuk membendung isu ini daripada terus berlaku. Artikel ini membincangkan berkaitan isu pemerdagangan manusia di Malaysia dan usaha yang dijalankan oleh pihak kerajaan bagi menangani isu ini. Metod penulisan adalah berasaskan pendekatan kualitatif iaitu melalui penyelidikan kepustakaan. Bahan-bahan seperti buku, jurnal ilmiah, internet dan laporan kerajaan dianalisis untuk mendapatkan maklumat bagi melengkapkan artikel ini.*

Keywords: *Pemerdagangan Manusia, Malaysia, Usaha Membanteras*

Pengenalan

Isu pemerdagangan manusia merupakan senario serius yang melanda dunia secara global. Pemerdagangan manusia juga berada pada tahap yang membimbangkan dengan anggaran hampir 2.5 juta manusia dari 127 buah negara telah diperdagangkan di seluruh dunia (Mohd Bakri, 2010). Jika diteliti, pemerdagangan manusia bukanlah satu fenomena baru yang melanda dunia malahan ianya dipercayai telah bermula ribuan tahun dahulu dalam bentuk perhambaan. Menerusi kajian sejarah juga terdapatnya bukti-bukti yang menunjukkan bahawa pemerdagangan manusia telah berlaku di rantau seperti Asia Tenggara sejak zaman penjajahan lagi. Ini dapat dilihat menerusi wanita-wanita dari Jepun dan China yang telah bermigrasi melalui Singapura ke negara-negara Asia Tenggara lain untuk berkhidmat sebagai pekerja seks (Glind dan Kooijmans, 2008). Pemerdagangan manusia didefinisikan sebagai perbuatan yang melibatkan pemerolehan atau pengekalan tenaga kerja atau perkhidmatan seseorang melalui paksaan seperti merekrut, mengangkut, memindahkan, melindungi, menyediakan atau menerima seseorang (Seksyen 2 Akta Antipemerdagangan Orang Dan Antipenyeludupan Migran, 2007).

Pemerdagangan manusia terdiri daripada beberapa bentuk. Antaranya ialah eksploitasi seks, buruh terikat, pengabdian domestik secara paksa, penjualan organ dan pemerdagangan bayi (Wan Abdul Halim, 2015). Eksploitasi seks biasanya melibatkan mangsa pemerdagangan manusia yang ditipu dengan janji mendapat pekerjaan yang bergaji lumayan

namun kemudiannya dipaksa melacurkan diri manakala buruh terikat pula melibatkan mangsa pemerdagangan manusia yang diseludup secara haram dan dimanipulasi sepenuhnya untuk bekerja di bawah pengawasan yang ketat serta kadangkala tidak dibayar gaji (Wan Abdul Halim, 2015). Pengabdian domestik pula menurut Wan Abdul Halim (2015) biasanya melibatkan mangsa pemerdagangan manusia iaitu wanita yang dipaksa bekerja sebagai pembantu rumah atau pengasuh manakala kanak-kanak dipaksa untuk bekerja sebagai pengemis dan penjualan organ juga merupakan salah satu daripada bentuk pemerdagangan manusia yang mana kebanyakan organ-organ ini diperolehi dari negara-negara mundur manakala pemerdagangan bayi pula biasanya dilakukan oleh sindiket-sindiket penculikan kerana sentiasa mendapat permintaan tinggi.

Menerusi bentuk-bentuk pemerdagangan manusia yang berlaku pada masa kini, dapat dilihat bahawa isu pemerdagangan manusia merupakan perhambaan zaman moden yang bukan sahaja mencipta ketidakadilan dan menzalimi manusia malah turut mengancam nilai kemanusiaan dan merosakkan struktur sosial. Isu ini juga sering mendapat liputan dan perhatian dari seluruh dunia kerana umum telah menyedari bahawa pemerdagangan manusia merupakan satu bentuk ancaman baru yang berada pada tahap membimbangkan serta memerlukan keprihatinan pelbagai pihak untuk mengatasinya. Menerusi laporan dari United Nations Office of Drugs and Crime (UNODC), digambarkan bahawa fenomena pemerdagangan manusia meliputi 161 buah negara yang berfungsi sebagai negara sumber, negara transit dan negara destinasi bagi pemerdagangan manusia (Kokko, 2008). Negara sumber merupakan negara di mana mangsa pemerdagangan manusia itu berasal, negara transit pula merupakan negara yang digunakan sebagai laluan oleh sindiket untuk membawa mangsa pemerdagangan manusia sebelum tiba ke negara destinasi manakala negara destinasi pula ialah negera penerima atau negara yang dituju oleh sindiket untuk membawa mangsa pemerdagangan manusia (Wan Abdul Halim, 2015).

Neil Jensen selaku Bekas Ketua Pegawai Eksekutif Pusat Transaksi Laporan dan Analisis Australia (AUSTRAC) menganggarkan keuntungan yang diraih daripada kegiatan pemerdagangan manusia adalah US$10 billion hingga US$31.6 billion setahun atau US$13,000 bagi setiap mangsa berdasarkan kepada Pertubuhan Buruh Sedunia (ILO) (Mstar, 20 Julai 2010). Keuntungan besar yang diperoleh menerusi kegiatan pemerdagangan manusia ini telah menyebabkan isu ini semakin menular di seluruh dunia dan menjadi isu yang sukar dikawal. Walaubagaimanapun, isu pemerdagangan manusia tidak boleh dibiarkan daripada terus berlaku dan usaha-usaha yang holistik serta efektif perlu terus disusun dan dilaksanakan bagi membendung isu ini kerana ianya memberikan impak yang negatif kepada perkembangan sesebuah masyarakat di samping merencatkan pembangunan sesebuah negara.

Malaysia Dan Isu Pemerdagangan Manusia

Secara umumnya, hampir kesemua negara di dunia terlibat dengan isu pemerdagangan manusia. Hal ini disebabkan kerana isu pemerdagangan manusia merupakan isu rentas sempadan, maka banyak negara di dunia sama ada negara maju atau membangun tidak terlepas daripada menghadapi isu ini. Di negara maju seperti Amerika Syarikat misalnya, menurut Chapkis (2003) setiap tahun mangsa pemerdagangan manusia di negara tersebut yang melibatkan wanita dan kanak-kanak mencecah 50, 000 orang setiap tahun. Wanita dan kanak-kanak ini dipaksa dan ditipu oleh jaringan industri haram antarabangsa termasuk menjadi buruh paksa, keldai dadah, perkhidmatan domestik, kerja-kerja pertanian dan pelacuran. Mangsa-mangsa pemerdagangan manusia yang dibawa masuk ke Amerika Syarikat tanpa dokumen ini turut dipaksa bekerja di sektor perkilangan dan perladangan.

Jika dilihat dengan lebih dekat khususnya di rantau Asia Tenggara, banyak negara yang sedang pesat membangun turut menghadapi isu pemerdagangan manusia. Tuntutan

desakan hidup ekoran dari ketidakselamatan ekonomi, pembangunan sosial, politik negara yang tidak stabil, dan kurangnya pendedahan terhadap pendidikan menyebabkan banyak kawasan-kawasan pedalaman di negara-negara Asia Tenggara berisiko tinggi menjadi latar kepada fenomena pemerdagangan manusia (Firdaus dan Zarina, 2015). Di Thailand misalnya, setiap tahun beribu kanak-kanak di perdagangkan keluar dari kawasan perkampungan mereka yang terletak jauh di pedalaman. Mereka ini kemudiannya akan dijual dan diperdagangkan di bandar-bandar besar di Thailand. Antara tujuan utama mereka didagangkan adalah untuk kegiatan pelacuran serta pornografi dan mereka juga turut didagangkan sehingga ke pasaran luar negara. Menurut kajian UNICEF pada tahun 2001, Thailand merupakan negara transit, sumber dan destinasi kanak-kanak dan wanita untuk tujuan keperluan pasaran industri seks global dan pada masa yang sama untuk industri seks tempatannya (Burke dan Ducci, 2006).

Di rantau Asia Tenggara pula, Malaysia merupakan antara negara yang pesat membangun dan pada masa yang sama terpaksa menghadapi isu pemerdagangan manusia. Malaysia dianggap sebagai negara destinasi serta transit bagi aktiviti pemerdagangan manusia dan Malaysia juga tidak dapat mengelak daripada menjadi negara sumber walaupun masih di tahap rendah (Mohd Bakri, 2010). Perkembangan ekonomi Malaysia yang pesat di samping kemakmuran yang dikecapi membuatkan Malaysia sering kali menjadi tarikan utama kepada warga asing untuk datang ke negara ini. Menurut SUHAKAM (Suruhanjaya Hak Asasi Manusia, 2018) memandangkan Malaysia merupakan destinasi popular dalam kalangan pekerja asing atas sebab ekonomi atau sebagai negara transit, kumpulan pekerja ini terdedah menjadi mangsa pemerdagangan seks dan buruh.

Isu pemerdagangan manusia di Malaysia perlu dipandang serius kerana menerusi laporan yang dikeluarkan oleh Jabatan Negara Amerika Syarikat (U.S. Department Of State) pada tahun 2012 mencatatkan bahawa terdapat 2 juta mangsa pemerdagangan manusia terdiri daripada 2 juta pekerja asing yang sah di Malaysia dan 2 juta lagi adalah merupakan pekerja asing tanpa izin di Malaysia. Pekerja-pekerja asing yang datang ke Malaysia berasal dari pelbagai negara termasuklah negara-negara jiran seperti Indonesia, Thailand, Filipina serta negara-negara lain seperti Vietnam, Myanmar, Kemboja, India, China, Nepal, Bangladesh dan Pakistan (Norcikeyonn dan Nor-Ina, 2013). Majoriti mereka datang ke Malaysia kerana mencari peluang ekonomi yang lebih besar berbanding di negara asal dan keadaan ini membuatkan mereka mudah untuk terlibat dengan isu pemerdagangan manusia.

Isu pemerdagangan manusia ini juga menyebabkan imej Malaysia semakin buruk apabila pada bulan Januari 2015 pasukan projek khas daripada akhbar New Straits Times (NST) telah menjumpai kem pemerdagangan manusia dan kubur di kawasan berbukit yang terletak di Wang Kelian, Perlis (Berita Harian, 20 Disember 2017). Melalui penyiasatan yang dilakukan, kem tersebut merupakan lokasi transit kepada pendatang asing yang ingin memasuki Malaysia. Sisatan yang dilakukan di kem tersebut juga menjumpai 139 buah kubur besar dan kecil yang dipercayai mengandungi ratusan mayat pendatang asing khususnya dari Myanmar dan Bangladesh (Utusan Online, 26 Mei 2015). Keadaan ini benar-benar mencalarkan imej Malaysia di mata dunia sebagai sebuah negara yang sentiasa mendukung konsep hak asasi manusia dan sentiasa menentang sekeras-kerasnya perlakuan memperdagangkan orang.

Walaupun Malaysia tidak dianggap sebagai negara sumber dalam isu pemerdagangan manusia akan tetapi Malaysia dikenalpasti sebagai negara transit dan negara yang memerlukan sumber permintaan manusia yang tinggi tidak kira sama ada lelaki dewasa, wanita dewasa mahupun kanak-kanak yang diperlukan dalam pelbagai sektor. Ekoran daripada permintaan tinggi tenaga kerja ini dalam pelbagai sektor selain daripada sikap rakyat tempatan yang memilih pekerjaan telah menyebabkan ramai warga asing datang ke Malaysia atas tujuan mendapatkan peluang pekerjaan (Kartini, 2015). Namun begitu, tujuan tersebut

sering menyebabkan mereka dimanipulasi oleh sesetengah pihak yang tidak bertanggungjawab lalu menyebabkan mereka terlibat dengan isu pemerdagangan manusia di Malaysia. Hal ini menyebabkan Malaysia tidak dapat mengelak daripada menghadapi isu pemerdagangan manusia yang berlaku setiap tahun.

Pelbagai usaha telah dijalankan oleh pihak kerajaan dengan bantuan dan kerjasama pihak Badan Bukan Kerajaan (NGO), namun Malaysia masih tidak dapat menangani isu pemerdagangan manusia secara menyeluruh. Buktinya dapat dilihat menerusi Laporan Pemerdagangan Manusia yang dikeluarkan oleh Jabatan Negara Amerika Syarikat menyatakan bahawa Malaysia masih belum mampu untuk mencapai ranking terbaik dalam laporan tersebut sejak tahun 2001. Laporan Pemerdagangan Manusia dikeluarkan pada setiap tahun dan laporan ini adalah berdasarkan tahap pematuhan standard minimum dalam memerangi jenayah pemerdagangan manusia (U.S. Department Of State, 2018). Menerusi laporan ini juga, ranking akan diberikan kepada setiap negara pada setiap tahun berdasarkan usaha yang diambil oleh negara tersebut dalam membanteras pemerdagangan manusia di negara mereka di samping mengaplikasikan sepenuhnya Akta Pemerdagangan Perlindungan Manusia (TVPA) Amerika Syarikat mengikut standard minimum.

Tahap 1 merupakan ranking terbaik yang diberikan menerusi laporan ini diikuti oleh Tahap 2, Tahap 2 Pemerhatian dan Tahap 3 yang merupakan ranking terendah dalam laporan tersebut. Sejak Laporan Pemerdagangan Manusia ini diperkenalkan pada tahun 2001, Malaysia pernah menduduki Tahap 3 sebanyak empat kali, menduduki Tahap 2 Pemerhatian sebanyak lapan kali termasuk pada tahun 2018, menduduki Tahap 2 sebanyak lima kali dan tidak pernah langsung menduduki Tahap 1 (Laporan Pemerdagangan Manusia, 2001-2018). Pada tahun 2018, Malaysia dinyatakan sebagai belum memenuhi sepenuhnya standard untuk membanteras isu pemerdagangan manusia walaupun terdapat beberapa usaha yang telah dijalankan oleh kerajaan Malaysia. Kedudukan Malaysia juga menurun daripada Tahap 2 pada tahun 2017 kepada Tahap 2 Pemerhatian pada tahun 2018 kerana kerajaan Malaysia didapati kurang mendakwa suspek-suspek yang disyaki terlibat dalam isu pemerdagangan manusia berbanding pada tahun 2017 (Laporan Pemerdagangan Manusia, 2018).

Berdasarkan Statistik Kes Pemerdagangan Orang Mengikut Agensi Penguatkuasaan (Kementerian Dalam Negeri, 2018) yang dikeluarkan oleh Kementerian Dalam Negeri juga, terdapat 1288 kes pemerdagangan manusia yang berlaku di Malaysia sejak tahun 2008 hingga tahun 2017. Kes-kes ini dikendalikan oleh agensi penguatkuasaan seperti Polis Diraja Malaysia, Jabatan Imigresen Malaysia, Jabatan Kastam Diraja Malaysia, Agensi Penguatkuasaan Maritim Malaysia dan Jabatan Tenaga Kerja. Jumlah kes yang dinyatakan menunjukkan bahawa isu pemerdagangan manusia di Malaysia akan menjadi lebih serius jika tidak ditangani dengan efektif dan segera. Bukan itu sahaja, isu ini juga jika tidak dibendung pasti akan membawa kesan negatif khususnya kepada mangsa yang terlibat, masyarakat sekeliling, ekonomi dan negara (Wan Abdul Halim, 2015).

Usaha Malaysia Dalam Membanteras Isu Pemerdagangan Manusia

Menerusi Artikel 6 (1) dan 6 (2) Perlembagaan Persekutuan melarang perhambaan dan buruh paksa. Walaupun Perlembagaan Persekutuan tidak mendefinisikan apakah perhambaan dan buruh paksa, namun menurut Pertubuhan Buruh Antarabangsa perhambaan dan buruh paksa merupakan kerja atau perkhidmatan yang diminta dari sesiapapun di bawah ancaman denda dan yang mana orang tersebut tidak pernah menawarkan perkhidmatannya dengan sukarela (Beate Andrees, 2008). Dalam keadaan ini, jelas bahawa perhambaan dan buruh paksa merupakan bentuk pemerdagangan manusia yang dilarang sama sekali di peringkat antarabangsa termasuklah di Malaysia (Zuraini dan Khairul Azmin, 2013). Menyedari bahawa isu pemerdagangan manusia membawa pelbagai kesan buruk kepada negara,

kerajaan Malaysia telah menyusun beberapa langkah untuk menangani isu ini. Langkah tersebut termasuklah menubuhkan Majlis Antipemerdagangan Orang dan Antipenyeludupan Migran (MAPO), mewujudkan Akta Antipemerdagangan Orang dan Antipenyeludupan Migran (ATIPSOM 2007), melancarkan Pelan Tindakan Kebangsaan Antipemerdagangan Orang (2010-2015) serta Pelan Tindakan Kebangsaan Antipemerdagangan Orang (2016-2020).

Majlis Antipemerdagangan Orang dan Antipenyeludupan Migran (MAPO)

Majlis Antipemerdagangan Orang merupakan suatu agensi yang ditubuhkan pada tahun 2008 sebagaimana yang telah diperuntukkan oleh Seksyen 6 (1) Akta Antipemerdagangan Orang 2007 (Akta 670). Pindaan akta yang dibuat pada tahun 2010 telah menukar nama agensi ini kepada Majlis Antipemerdagangan Orang dan Antipenyeludupan Migran (MAPO). Keahlian di dalam majlis ini terdiri daripada pihak kerajaan seperti Ketua Setiausaha Kementerian Luar Negara, Ketua Setiausaha Kementerian Pembangunan Wanita, Keluarga dan Masyarakat, Ketua Setiausaha Kementerian Sumber Manusia, Ketua Setiausaha Kementerian Pengangkutan, Ketua Setiausaha Kementerian Penerangan, Komunikasi dan Kebudayaan, Peguam Negara, Ketua Polis Negara dan Ketua Pengarah Imigresen, Ketua Pengarah Kastam, Ketua Pengarah Agensi Penguatkuasaan Maritim Malaysia dan Wakil Kementerian Dalam Negeri. Ahli di dalam majlis ini juga terdiri daripada pihak badan bukan kerajaan (NGO) seperti wakil Suruhanjaya Hak Asasi Manusia Malaysia (SUHAKAM), wakil *National Council of Women's Organisations* (NCWO) dan wakil Universiti Kebangsaan Malaysia (UKM). Di bawah MAPO juga terdapat beberapa sekretariat seperti Jawatankuasa Perundangan, Jawatankuasa Penguatkuasaan, Jawatankuasa Perlindungan dan Pemulihan Mangsa, Jawatankuasa Khas Mengenai Pemerdagangan Buruh dan Jawatankuasa Media dan Publisiti. MAPO menjalankan fungsi seperti berikut :

i. Merumus dan menyelia pelaksanaan pelan tindakan kebangsaan mengenai pencegahan dan pembanterasan pemerdagangan orang termasuklah bantuan dan perlindungan kepada orang yang diperdagangkan.
ii. Membuat syor kepada menteri tentang segala aspek pencegahan dan pembanterasan pemerdagangan orang.
iii. Mengawasi corak imigrasi dan emigrasi di Malaysia bagi bukti pemerdagangan dan endapatkan respon segera dari agensi atau badan kerajaan yang berkaitan dan pertubuhan bukan kerajaan tentang masalah pemerdagangan orang yang dibawa kepada perhatian mereka.
iv. Menyelaraskan perumusan dasar dan mengawasi pelaksanaannya ke atas isu-isu pemerdagangan orang yang berkaitan dengan agensi atau badan kerajaan dan pertubuhan bukan kerajaan yang berkaitan.
v. Merumuskan dan menyelaraskan langkah-langkah untuk mendidik dan memberi kesedaran kepada orang awam, termasuk orang-orang yang berkemungkinan diperdagangkan, tentang sebab dan akibat pemerdagangan orang.
vi. Bekerjasama dan menyelaras dengan badan antarabangsa dan badan atau jawatankuasa serantau lain yang serupa berhubung dengan masalah dan isu pemerdagangan orang termasuk bantuan dan perlindungan kepada orang yang diperdagangkan.
vii. Menasihati kerajaan mengenai isu pemerdagangan orang termasuk perkembangan di peringkat antarabangsa terhadap perbuatan pemerdagangan orang.

viii. Mengumpul dan mengumpual semak data dan maklumat serta maklumat dan memberi kuasa bagi penyelidikan berhubung dengan pencegahan dan pembanterasan pemerdagangan orang.
ix. Melaksanakan apa-apa fungsi lain sebagaimana yang diarahkan oleh menteri bagi pelaksanaan akta ini dengan sewajarnya.

Akta Antipemerdagangan Orang dan Antipenyeludupan Migran (2007)

Akta Antipemerdagangan Orang dan Antipenyeludupan Migran (2007) telah diperkenankan pada 18 Julai 2007 (Akta Antipemerdagangan Orang Dan Antipenyeludupan Migran, 2007) yang bertujuan untuk mencegah dan memerangi pemerdagangan manusia. Tindakan ini termasuk perlindungan dan sokongan kepada mangsa pemerdagangan, hukuman penjenayah, penubuhan majlis antipemerdagangan manusia dan perkara yang berkaitan dengannya (Kartini, 2015). Walaubagaimanapun, akta ini dipinda pada tahun 2010 dan dinamakan sebagai Antipemerdagangan Orang dan Antipenyeludupan Migran (ATIPSOM). Pindaan akta tersebut dilakukan bertujuan untuk menangani sindiket antarabangsa yang menjadikan Malaysia sebagai negara transit pemerdagangan dan penyeludupan manusia sebelum membawa mangsa-mangsa yang terlibat ke negara ketiga terutamanya Australia (Norcikeyonn dan Nor-Ina, 2013).

Di bawah ATIPSOM, pemerdagangan manusia ditakrifkan sebagai semua perbuatan yang melibatkan pemerolehan atau pengekalan tenaga kerja atau perkhidmatan seseorang melalui paksaan seperti merekrut, mengangkut, memindahkan, melindungi, menyediakan atau menerima seseorang (Seksyen 2 ATIPSOM). Akta ini memberi kuasa kepada pihak kerajaan untuk mendakwa dan mengenakan hukuman selain peruntukan penjara sehingga 20 tahun dan denda sehingga RM50,000 (Wan Abdul Halim, 2015). Di bawah akta ini juga, Majlis Antipemerdagangan Orang telah ditukar namanya kepada Majlis Antipemerdagangan Orang dan Antipenyeludupan Migra (MAPO). MAPO diamanahkan untuk menyelaras dan melaksanakan ATIPSOM serta merangka program-program dasar dan perlindungan untuk memerangi pemerdagangan orang dan penyeludupan migran.

Pelan Tindakan Kebangsaan Antipemerdagangan Orang (2010-2015)

Sebagai kesinambungan kepada ATIPSOM, Pelan Tindakan Kebangsaan Antipemerdagangan Orang (2010-2015) telah dilancarkan. Pelan ini dilancarkan oleh bekas Menteri Pertahanan Malaysia, YB Dato' Seri Hishammuddin Bin Tun Hussein. Pelan Tindakan Kebangsaan Antipemerdagangan Orang (2010-2015) ini diwujudkan adalah bertujuan sebagai pelengkap kepada Akta Antipemerdagangan Orang dan Antipenyeludupan Migran (ATIPSOM) dalam memastikan pelaksanaan inisiatif nasional berjalan dengan lancer dan efektif untuk tempoh lima tahun iaitu bermula dari tahun 2010 sehingga 2015 (Norcikeyonn dan Nor-Ina, 2013). Pelancaran Pelan Tindakan Negara Menentang Pemerdagangan Orang 2010-2015 juga secara langsung mencerminkan komitmen dan aspirasi Malaysia dalam memerangi pemerdagangan manusia.

Antara objektif pelan ini ialah menentukan hala tuju strategik untuk tempoh lima tahun, menentukan matlamat strategik yang akan memandu dan memacu usaha-usaha nasional untuk membanteras jenayah pemerdagangan orang serta menentukan bidang-bidang program untuk menyokong dan memastikan keberkesanan pelaksanaan matlamat strategik (Majlis Antipemerdagangan Orang, 2010). Terdapat lima prinsip yang menjadi panduan dalam pelan ini termasuk tanggungjawab kerajaan, penyertaan masyarakat sivil, layanan terhadap mangsa pemerdagangan manusia berdasarkan hak asasi manusia, koordinasi dalam kalangan pelbagai agensi di peringkat kerajaan dan dengan pertubuhan-pertubuhan

antarabangsa serta Badan Bukan Kerajaan (NGO) dan prinsip terakhir iaitu penilaian sistematik dan ketahanan.

Pelan Tindakan Kebangsaan Antipemerdagangan Orang (2016-2020)

Pelan Tindakan Kebangsaan Antipemerdagangan Orang (2016-2020) dilancarkan pada 15 Ogos 2016 oleh bekas Timbalan Perdana Menteri Malaysia, Datuk Seri Dr. Ahmad Zahid Hamidi. Pelan Tindakan Kebangsaan Antipemerdagangan Orang (2016-2020) adalah penting bagi merealisasikan matlamat dan aspirasi kerajaan Malaysia dalam mencegah dan membanteras isu pemerdagangan manusia (Jabatan Penerangan Malaysia, 2017). Pelan ini merupakan fasa kedua daripada pelan 2010-2015 bagi memastikan Malaysia berusaha mencapai Tahap Satu dalam Laporan Pemerdagangan Orang yang dikeluarkan setiap tahun oleh Jabatan Negara Amerika Syarikat.

Pelan ini juga melibatkan kerjasama pelbagai kementerian, jabatan dan agensi yang memerangi pengedaran manusia. Ia juga melibatkan komitmen dan kerjasama jentera yang terlibat dalam penguatkuasaan, perundangan, perlindungan dan publisiti dalam tempoh lima tahun akan datang (Utusan Borneo Online, 16 Ogos 2016). Selain itu, pelan ini akan memberikan keutamaan kepada kebajikan dan perlindungan mangsa pemerdagangan manusia mengikut cadangan seperti yang ditentukan di peringkat antarabangsa. Pelan ini turut akan menjadi rujukan dan panduan asas bagi kementerian dan agensi kerajaan serta NGO yang terlibat dalam usaha menangani isu pemerdagangan manusia di Malaysia di samping merancang strategi-strategi penguatkuasaan yang berkesan.

Kesimpulan

Kesimpulannya, pemerdagangan manusia merupakan satu isu yang serius yang sedang melanda dunia dan bukan sahaja berlaku di Malaysia. Isu pemerdagangan manusia tidak boleh dibiarkan daripada terus berlaku di Malaysia kerana ianya akan membawa pelbagai kesan negatif khususnya merencatkan pembangunan negara ini dari aspek politik, ekonomi dan sosial. Oleh yang demikian, kerajaan Malaysia telah mengambil beberapa langkah efektif untuk menangani isu ini. Langkah-langkah yang diambil jelas menunjukkan bahawa kerajaan Malaysia sentiasa berusaha dengan gigih dan proaktif dalam membanteras isu pemerdagangan manusia secara holistik. Langkah-langkah yang telah dijalankan ini juga menunjukkan bahawa kerajaan Malaysia telah melakukan yang terbaik dalam menangani isu pemerdagangan manusia dengan mengikut dasar negara serta mengambil kira aspek kedaulatan, keselamatan dan integriti. Pada masa yang sama, langkah-langkah yang diambil oleh kerajaan ini akan memberikan hasil yang positif sekiranya masyarakat sekeliling memahami, mempunyai kesedaran serta tanggungjawab sosial dalam membantu pihak kerajaan menangani isu pemerdagangan manusia hingga ke peringkat akar umbi.

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